

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 919—VOL. XXIII.]

LONDON, SATURDAY, APRIL 2, 1853.

[PRICE 6d.

Suitable for Engine Building, Iron Forge, Blast Furnaces, Foundry, Rolling Mill, Waggon Building, Saw Mill, Deal and Timber Yard, Chain and Anchor Works, Patent Ropery, Artificial Manure, Patent Fuel, or other Chemical Works, Sail-cloth Factory, Agricultural Implement Manufactury, Brewery and Malting, or any other business requiring extensive space and building accommodation. Also, 14-horse Steam Engine, Boiler, Cranes, Deals, Coal Tubs, &c.

M. R. GEORGE HARDCastle, auctioneer, is ordered to SELL, by

AUCTION, without reserve, upon the premises, on Monday, April 4, 1853,

punctually at Two o'clock in the afternoon, the

LEASEHOLD ENGINE MANUFACTORY AT CASTLE EDEN,

in the county of DURHAM, lately in the occupation of THOS. RICHARDSON, Esq., deceased.

This desirable establishment, which occupies a commanding commercial position

within the southern boundary of the Durham coal-field, and in the centre of an im-

portant agricultural district, abounding in magnesian limestone, is most advan-

tageously situated at the point where the Stockton and Sunderland turnpike road crosses

the Hartlepool Railway, 10 miles from the main line of the York, Newcastle, and

Berwick, and six miles from the deep-water seaports of Old and West Hartlepool.

The property includes large foundries, numerous shops for engine building, smiths

and joiner's work, &c., &c., and spacious yards, the whole held at the almost nominal

rent of £15 per annum, and a house which will not expire till November 13, 1858.

Also, will be sold at the same time and place, but separately from the above-named

property, a HIGH-PRESSURE LEVER ENGINE, 12-in. cylinder, 2 ft. 10-in. stroke,

fly-wheel, driving shafts and sheaves, hot and cold water pump; ENGINE

BOILER 15 ft. by 5 ft.; steam and water pipes; fire frame and bars; fire-blast; 10

new coal tubs; malleable iron shafting, with cones and sheaves; two powerful foundry

cranes, capable of lifting 10 tons each; double iron crane, blocks and tested chains;

two 3-ton cranes; metal columns, shafting, and clutches; graving screen, engine-beam

balance-weight, metal pump, metal bottoms, fire grates; pair of large overhauls, with

brasses, sundry valuable machinery, patterns, malleable iron rails and chairs; rail-

way coke wagon, boiler wagon, timber wagon, and detached body; ash timber,

oak spoke-wood, and wagon sheaths; stout deals and iron rails; a large quantity of

tiles, roofing timbers, joints, booring, and useful scaplings; broad step-ladder; oak

posts, &c., &c.; office or library bookcase 12 ft. by 8, in five parts, with closets, &c.;

patent shower-tub; and sundry other articles of importance.

Inspection of the premises will be granted on application to Thomas Richardson,

Esq., Castle Eden.

Luncheon will be served at One o'clock; the sale will commence at Two to a minute,

and be continued till all is absolutely sold.

PAYMENTS.—Under £20 in cash; above £20 in approved bills at four months' date,

or 2½ per cent. discount will be allowed for cash in lieu of bills.

Sunderland Sale Offices, March 14, 1853.

Llanelli, South Wales.

M. ESSRS. FULLER AND HORSEY WILL SELL, BY AUCTION,

at the Mart, on Tuesday, April 5th, at Twelve o'clock, the PATENT FUEL

WORKS, LLANELLY, a port of much importance on the coast of Carmarthenshire,

having direct railway communication with London. The buildings, which are prin-

cipally of stone, were erected about ten years since, and comprise a FACTORY of

TWO FLOORS, 60 feet by 40 feet, with a wing on either side; on the ground floor,

an engine-house, two lofty brick chimney shafts, a shed for loading or unloading,

counting-house, a well, several ponds or reservoirs for water, and a spacious yard,

having entrance by folding gates. The total area is about 85,000 superficial feet.

The docks are adjacent, and tramways have been constructed from the works to the land-

ing stages in the docks, affording the greatest facility for landing or shipping goods.

The main line of the South Wales Railway is also immediately contiguous. The works

are present fitted with PLANT and MACHINERY for the MANUFACTURE of

PATENT FUEL, having steam power equal to 30 horses, but the premises are well

adapted for lead, silver, tin, or copper works, or equally so for a brewery or flour

mill, either or both of which are much needed from the increasing population and

importance of the place, large quantities of flour being annually imported to Llanelli.

A portion of the ground could be advantageously occupied as building ground for cot-

tages, which are in great demand. The whole held for a term of 50 years, at a ground

rent of £50 per annum. To be viewed till the sale.—Printed particulars, with plans,

may shortly be had on the premises; at the principal inns at Swansea and Bristol; at

the Auction Mart; and of Messrs. Fuller and Horsey, Billiter-street, London.

DESIRABLE INVESTMENT.—TWO VALUABLE FREEHOLD ESTATES, IN

THE PARISH OF WHITCHURCH, DEVON.

M. R. T. B. GILL WILL SELL, BY AUCTION, on Tuesday, the

19th April, 1853, at the Queen's Head Inn, Tavistock, at Three o'clock in the

afternoon, subject to such conditions as shall be then and there produced, the under-

mentioned FREEHOLD ESTATES, with PASTURAGE on the following DOWNS:

—viz., West, Werry, Shorts, Plaster, and Whitchurch, also Pewtor Common, with

Venfield and Turbury rights, on the Forest of Dartmoor; the former giving the oc-

cupier of either estate the unlimited and valuable rights of pasture, the latter of

cutting turf, &c., thus ensuring a cheap and abundant supply of fuel.

Lot 1.—Comprises all that well-known and valuable estate called or known as

BYTON, in the parish of Whitchurch, Devon, containing 78A. 1R. 22E., or there-

abouts, of prime ORCHARD, MEADOW, ARABLE, and PASTURE LANDS, with

convenient and substantial DWELLING HOUSE, also all necessary OUT-BUILD-

INGS, in excellent repair.

Lot 2.—Comprises all that well-known and valuable estate called or known as

PENNINGTON, in the parish of Whitchurch, Devon, containing 78A. 1R. 22E., or there-

abouts, of prime MEADOW, ARABLE, and PASTURE LANDS, with

convenient and substantial DWELLING HOUSE, also all necessary

OUT-BUILDINGS, in excellent repair.

These estates are at present occupied by a respectable tenant, at the moderate rental

of £120 per annum, for the remainder of a term of fourteen years, nine of which are

unexpired, determinable at the expiration of the first seven by twelve months' pre-

vious notice in writing. The above property affords an opportunity for investment

readily to be met with, and is situated 2½ miles from Tavistock, and 12 from Plymouth

(both excellent market towns), 4½ miles from Looe, Quay and Lime Kilns, and eight from New Quay, Morwellham and Gwanton Quays, from either of which an

abundant supply of manure of all descriptions can be obtained.

To me speculators this offers an excellent opportunity for investment, on account

of several valuable MINERAL LODES running through the estates, for which large

sums have been offered the present proprietor. On the above property there is an

abundant supply of water, and the contemplated railway passing near the same en-

riches the value considerably. The present proprietor, to meet the views of pur-

chasers, has no objection to leave a portion of the purchase money on the estate, sub-

ject to give or take 12 months' notice for payment of the same.

For viewing the property, apply to Mr. F. Prouse, tenant, at Boyton; and for fur-

ther particulars to the auctioneer, West-street, Tavistock; or Mr. C. V. Bridgeman,

Esq., Tavistock.

Dated March 26, 1853, Auction and Land Agency Office, West-street, Tavistock.

QUINT'S BAY, CORNWALL.—ACTON CASTLE, LATE THE RESIDENCE OF

VICE-ADMIRAL PRAED (deceased), WITH FIFTY-TWO ACRES OF FREE-

HOLD LAND.

B. WILLIAM RICHARDS will SELL, BY AUCTION, at

Ball's Union Hotel, PENZANCE, on Thursday, the 28th day of April next,

Four o'clock in the afternoon, the fee simple and inheritance of and in all that

ANSION called ACTON CASTLE, with the STABLES, COACH HOUSES, and

BUILDINGS AND OFFICES usually attached to a gentleman's residence, situate

in the MESSUAGES, FARM LANDS, and PASTURE LANDS, lying contiguous to

the castle, consisting of arable and pasture land, containing 52 acres, and which

have been improved and cultivated under the superintendence of the deceased owner,

are a farm house, an excellent barn and outbuildings, as well as three cottagers'

sets on the estate, with cattle houses and every requisite convenience for farm

poses, including a powerful thrashing machine. The property will be sold without

reservation, and will include the underground profits of the whole of one part,

containing 31 acres 0 rods 22 perches, and a moiety of another part, containing 19 acres

6 rods 8 perches of the estate, the latter of which was purchased subject to this re-

servation. Lodes of silver, lead, and copper are known to exist throughout the prop-

erty, repeated applications having been made to the late Admiral Praed from the

agents for grants to work the same.

Also, the PEE SIMPLE of and in ONE UNDIVIDED EIGHTH PART OF THE

FIELD forming part of the TENEMENT of RESUDGEON alias RUDGAN,

whole containing 19 acres, more or less, situate in the parish of ST. HILARY,

with a right of common in Resudgeon Downs. There are no mineral rights

in this portion of the property.

Acton Castle is situate on an eminence commanding a charming prospect of Mount's

Bay, over the whole of which it looks, and comprehends a most picturesque view of

Michael's Mount, as well as the whole extent of the western shore of the bay, in-

cluding the town of Penzance, with a bold outline of hills in the background. The

site is within half-a-mile of the great turnpike-road to Falmouth and Penzance,

the latter of which places it is distant about six miles, and at a distance of four

from the castle the same road passes the Marazion station of the West Corn-

wall Railway, which is now open to Penzance and Truro, offering communications to

east and west four times a day. A railway is also in progress of formation be-

twix Truro and Plymouth, which will complete the communication to London.

The above property will be sold as an entirety, and subject to such conditions as

be produced at the sale.

The property may be seen at any time between this and the sale, and further par-

ts obtained of the auctioneer, Mr. W. Richards, Penzance; or at the offices of

Mr. Rodd, Darke, and Cornish, solicitors, Penzance.

Dated March 25, 1853.

MINING CAPITALISTS.—TO BE SOLD, BY PRIVATE

TREATY, the absolute FREEHOLD and INHERITANCE of STRONG MI-

LD GROUND, abounding in undoubted indications of the presence of COPPER,

SLUG, and IRON ORES, of very superior quality. The land adjoins a good

water-course, which leads to a shipping port only five miles distant. There is abun-

dant water-power on the premises for working the mines. It is seldom that so

an opportunity is offered to the enterprising capitalist. For further par-

ts, apply to Mr. Thomas Dawson, mining agent, Carnarvon, North Wales.

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THE GREAT WESTERN AND FOREST OF DEAN DEEP-COAL COMPANY.—On the "Cost-Book Principle."

Capital £120,000, in 120,000 shares of £1 each, to be paid on allotment.

TRUSTEES.

SAMUEL BAKER, Esq., Thorngrove, near Worcester, Director of the Great Western & South Wales Railways, and Chairman of the Gloucester & Dean Forest Railway. CHARLES J. MARSH, Esq., M.P., 11, Hyde-park-gardens. PETER ROLT, Esq., M.P., Hyde-park-gardens. Col. SALWEY, Egham-park, Surrey.

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PROVISIONAL COMMITTEE.—LONDON.

L. BROCKLEBANK, Esq., M.A., Greenwich, Director of the Rent Guarantee Society. R. W. JOHNSON, Esq., Bromsgrove, Worcestershire, Director of the National Mercantile Life Office. CHARLES TWYNAM, Esq., Portsway, Hants. [anticipate Life Office. FREDERICK TWYNAM, Esq., Hampstead, London, Director of the National Mercantile Life Office. J. W. WOOLDRIDGE, Esq., Warwick-square, Kensington.

GOULCESTER.

THOMAS C. AVERY, Esq., solicitor, Gloucester, Director of the Gloucester and Dean Forest Railway.

JOHN W. HUGHES, Esq., merchant, Gloucester, Director of the Gloucester and Berkeley Canal Company.

EDWARD L. KENDALL, Esq., merchant, Gloucester.

DAVID M. WALKER, Esq., Gloucester, Director of the Gloucester and Dean Forest, and Hereford, Ross, and Gloucester Railways.

WILLIAM WASHBURN, Esq., Mayor of Gloucester.

(With power to add to their number.)

AUDITORS.—Jenkins Jones, Esq., F.I.A., London; Walter Wilkins, Esq., Gloucester. CONSULTING MINERAL ENGINEER.—William Price Strutt, Esq., M.Inst.C.E., Swansea. BANKERS.—Martin and Co., 68, Lombard-street, London; Gloucestershire Banking Company, Gloucester.

SOLICITORS.—Messrs. Blower, Vizier, and Parsons, 61, Lincoln's-inn-fields, London; Messrs. James and Wintle, Newnham.

SHAREBROKERS.—Messrs. Bragg and Stockdale, Throgmorton-street, London; Messrs. Green Brothers, Gloucester.

SECRETARY (pro tem.)—James M. Buckland, Esq., statist, Gloucester.

TEMPORARY OFFICES.

16, GRESHAM STREET, LONDON; 8, BARTON STREET, GLOUCESTER.

The company is formed for the purpose of working the deep coal in the Forest of Dean, Gloucestershire, held by the present proprietors under grants direct from the Crown, by virtue of the provisions of an Act, entitled "An Act for Regulating the Opening and Working of Mines and Quarries in the Forest of Dean and Hundred of St. Briavels in the County of Gloucester," 1 and 2 Vic. c. 43.

They contain five seams, in all about 15 ft. in thickness, extending under a surface area exceeding 1000 acres, covering more than 22,000,000 tons of coal, including the well-known Coleford Hill Delf, averaging nearly 6 feet, and computed to yield alone nearly 9,000,000 tons.

The properties held as above, and intended to be comprised in this undertaking, adjoint each other, and are described as the East Dean Deep, the New Bowson, and the Serridge gale, each of which contains the whole of the deep seams under the well-known Bilson and Crump Meadow Collieries.

The coals from three of the above seams worked near their crop in other parts of the forest are already in great demand in the provincial and home markets for household and other purposes, entering into successful competition with the best Staffordshire and Shropshire coals; whilst it is an established fact that their quality improves as they are worked in the deep. Large quantities of Dean Forest coal are also consumed by the steam-engines of West Gloucestershire and the gas and other works of Bristol, &c.; several hundred thousand tons being annually shipped from Lydney and Bullo Pill, the present demand for which is much in excess of the supply.

Specimens of the various seams from the Forest were sent to the Great Exhibition in Hyde-park; and in evidence before a Committee of the House of Commons, it was stated that four out of ten principal seams contained about 180,000,000 workable tons of coal—a quantity sufficient to last 600 years at the present rate of get. Of these four seams three of the deep coal are contained in the grants intended to be worked, which are, according to the "Geological Survey of Great Britain," respectively 2 feet inches, 2 feet 9 inches, and 3 feet in thickness.

The nature and capabilities of the Dean Forest coal field have been long known, and in its more immediate neighbourhood made available, but, until recently, inadequate or expensive canal and railway communication with its interior has tended to keep it not only out of the London market, but also to interfere with its general introduction to provincial towns not being in its own immediate vicinity—a difficulty which will be entirely obviated by a railway of only six miles in length, now in course of construction (which will be completed by the end of the present year), in connection with the South Wales and Great Western lines, and also with Bullo Pill, having its terminus on the property herein proposed to be worked, and almost close to the mouth of the intended shafts. Neither is this the only advantageous feature presented for cheap conveyance into and command of other and new markets, for the Severn and Wye Tramway, communicating with the port of Lydney, passes over the Serridge gale; and when this tramway is converted, as proposed, into a railway, its terminus will also be on the property. The projected railway to Monmouth will be similarly circumstanced, and so will be the Lea branch from the Hereford, Ross, and Gloucester Railway, whereby a direct communication by rail will be opened with Ross, Hereford, Leominster, Ludlow, and a large and populous district, deriving its nearest and cheapest coal from the Forest of Dean. The superior advantages from a coal field so singularly and peculiarly circumstanced must be self-evident, possessing as it does at present the two starting points of the Bullo Pill Railway before referred to, and having the other three in prospect.

By existing railways, this company will possess the means of supplying with an excellent fuel, at a cheaper rate than any other coal field, the towns of Cheltenham, Newnham, Gloucester, Cheltenham, Tewkesbury, Evesham, Upton-on-Severn, Stonehouse, Stroud and its Valleys, Brimscombe, Tetbury, Cirencester, Minety, Perton, Swindon, Shireham, Highworth, Farrington, and Wantage; and upon a satisfactory arrangement being made with the Great Western Railway Company of entering into easy competition with any in the kingdom, at Oxford, Abingdon, Didcot, Wallingford, Pangbourne, Reading, Newbury, Kintbury, Hungerford, Marlborough, Mortimer, Basingstoke, Twyford, Maidenhead, High Wycombe, Beaconsfield, Slough, Windsor, Eton, Staines, Uxbridge, Brentford, and London, with their gas-works, distilleries, breweries, &c.

The demand is very large, and the consumption great, in the places first named—those of Cheltenham and its neighbourhood alone exceeding 80,000 tons annually. This would be materially increased by a reduction in the Great Western Railway Company's rates to a correspondence with those on some of the northern lines, which must be ultimately made. The quantity imported by rail and water into London is now nearly 4,000,000 tons per annum; and nearly 1,000,000 additional tons are required in the districts traversed by the Great Western Railway and its branches between the Forest of Dean and Paddington—all of which but a small portion has as yet been derived from the western coal-fields.

Another large outlet for sale exists in the port of Gloucester, where vessels are now frequently obliged to take in ballast at a great expense, including its cost, loading, discharging, loss of time, &c., amounting to some shillings per ton, to enable them to proceed to Newport or Cardiff for cargoes of coal. On the completion of the new quays by the Dean Forest Railway Company, now in course of construction, these vessels will be able to load with the coal to be supplied by this company, in the Berkeley Canal, at as cheap a rate as at Newport or Cardiff, and to proceed at once to sea. The immense advantages of such a proceeding will be obvious, particularly when it is borne in mind that these coils will travel only 18 miles without breaking bulk from the pit's mouth to the ship's side in Gloucester.

The committee of the Gloucester and Berkeley Canal Company in their report, dated 31st March, 1852, state that "The number of vessels entered inward at Gloucester in 1851 was 1652, with a tonnage of 140,185 tons," being considerably more than entered the port of Bristol in the same year; "some of the larger vessels carrying 1200 tons of cargo, and all entered and departed without accident or inconvenience, and were discharged by the merchants of the port with most creditable dispatch; and the committee have the gratification to report that a prejudice, which had previously existed against Gloucester in the minds of many of the large shipowners in the kingdom, has been removed by the experience of the past year, and by their own personal inspection of the port; and that those who had before prohibited their vessels coming to Gloucester are now ready and willing to send them." And in a letter received from W. B. Clegram, Esq., clerk to the above company, he says that "the probability is, if coal is a really good quality, at a price not exceeding more than from 1s. to 2s. per ton, the price charged at Newport, could be put on board the vessels here, an amount of trade would be done which would make our total exports bear something like a fair proportion to our imports. This would give in coal not less than 150,000 tons per annum; and, although at first you might not succeed to this extent, I am quite of opinion that, if really good coal could be rendered, it would be long rise to this or even a larger quantity. It must be borne in mind, in reference to this, that the amount of import itself is likely to be increased by the export, and thus still further to widen the field of operations." The committee go on to report, "That the quarry and widening the canal by the Gloucester and Dean Forest Railway Company, under agreement with this company, is now in rapid course of construction, and will probably be completed in a few months; and what is of great, if not greater importance, the committee have been informed that a tender has been accepted for the conversion of the Bullo Pill Tramway into a railway, which, it is understood, will shortly be commenced. This work will connect by railway communication of less than 20 miles in length the ship's side in the canal at Gloucester with the coal-pits in the Forest of Dean; and the committee again express their anticipations of the greatest benefit from this to the port of Gloucester. It will, we hope, shortly give coal and iron as the basis of export cargoes. It will probably cheapen the price of salt by introducing its manufacture on the spot; and there is much reason to hope that general merchandise, both as an export and import, will find a larger place than it has hitherto done in Gloucester traffic."

It cannot, therefore, fail to strike every one, that this company possesses the best prospects for a most extensive trade, having so many ports open to them (at short distance from that pit's mouth), whence a large coasting, Irish and foreign trade may be supplied, in addition to the inland district, which comprises the whole of that part of England embraced by the Great Western Railway and its branches, in a large portion of which coils have been hitherto proverbially dear.

The immense traffic in inferior coals now established in London by the Great Northern and other railway companies, where consumers frequently have to wait two months for the execution of their orders, fully testifies to the fact, that the public are alive to the question of cheap fuel, and fast discrediting their old prejudices against all but seaborne coal.

To commence the proposed works, it will be necessary to sink two pairs of shafts to the Coleford-hill Delf seam, which will intersect the other seams in their course, and furnish them an early supply for the market. The two pairs of shafts will afford abundant room for bringing out at least 400 tons per day, and the proposed sum will be more than sufficient for this purpose, providing all the requisite steam engines, machinery, buildings, stock, implements, tram-ways, tram-wagons, and working capital, without the remotest probability of any further call upon the shareholders, and will leave a surplus to provide against contingencies, to extend the works, and to build a sufficient number of railway coal trucks for trading on the line with 100,000 tons annually.

The proprietors of these extensive and valuable coal fields, who will be entitled to a royalty of 1s. per ton on all the coal sold, in addition to that of 1d. per ton payable to the Crown, are willing to accept paid-up shares of the company in lieu of one-half of that amount, reducing the royalty to 6d. per ton; an arrangement which may be a relief to the company in the outset, and will possess the advantage of strengthening the interest of the proprietors of the coal fields in the success of the undertaking.

A calculation has been made, which after careful examination into the costs of working 100,000 tons per annum, also of the average sale prices for the last few years in the markets before referred to, and after allowing a liberal price for getting the coal, and including the royalties payable to the Crown and present gales of 1s. id. per ton,

shows a profit of 15 per cent., which will be considerably increased as the company's operations are extended beyond the assumed yearly get of 100,000 tons.

The company will be constituted and conducted strictly in accordance with the principle of the cost-book, which is new but nominally adopted by many companies, and the rules and regulations enjoined by the system, a strict adherence to which alone gives the protection and advantages conferred by the law, are too often either omitted in the constitution or essentially departed from in the management of mining associations. Every shareholder, therefore, in this company will, together with other advantages, have the privilege of investigating at any time its exact financial position, and of tracing the progress and development of the mines.

The committee of management will be elected by the shareholders from amongst themselves at their first meeting after the company is formed; and in the event of its objects not being carried out, the whole of the payments will be returned, subject only to the preliminary expenses, which will be guaranteed not to exceed 1s. per share: 2500 free shares are reserved, and the provisional committee, in allotting the remainder, will give a preference to the applications received for 15,000 shares when the property proposed to be worked was limited to the New Bowson Gale (not one-fifth of the extent of that now contemplated); then registered under the title of the "Great Western and Forest of Dean Coal Company."

Engineers' reports and estimates in relation to this property, the outlay of capital, the costs and returns from working the coal, &c., may be inspected by personal application at the temporary offices of the company in London or in Gloucester, and applications for prospectuses, and forms for taking shares, may be made, addressed to the secretary of the company, or to either of the solicitors or brokers.

FORM OF APPLICATION FOR SHARES.

Great Western and Forest of Dean Deep-Coal Company.

GENTLEMEN.—I request you to allot me shares in the above company, and I agree to accept the same, or any less number that may be allotted to me, and to pay the sum of £1 per share on allotment.

Dated this day of 1853.

Name..... Address..... Reference.....

To the provisional committee of the above-mentioned company.

THE IRISH CONSOLS MINING COMPANY.

Capital £30,000, in shares of £1 each, to be paid on allotment.

With power to increase to £30,000.

To be conducted strictly on the "Cost-Book Principle," and the accounts audited every two months. (No deed to be signed.)

This capital will be raised for the working of the "Spanish Cove" and "Collera" Copper Mines, County of Cork. The further issue of shares will be under the control of the shareholders, who will have a preference in any new allotments made by the Company.

DIRECTORS.—GEORGE MACARTNEY, Esq., M.P., Chairman of the Tynemouth Docks, and Morpeth and Shields Railway Company.—CHAIRMAN.

HENRY F. GIPPS, Esq., Canterbury, and Montague-place, Bryanston-square.

COL. CHATTETON, K.H., Chairman of the Cork and Bantry Railway Company.

JOHN W. RATHBONE, Esq., Director of the Grand Duchy of Baden Mines.

BANKERS.—Messrs. Glyn, Mills, and Co., Provincial Bank of Ireland.

BROKERS.—Messrs. Dowling and Brothwick, 75, Old Broad-street.

Messrs. J. Stephens and Son, 44, Dame-street, Dublin.

AUDITOR.—Robert Russell Notman, Esq., 22, Moorgate-street.

SECRETARY.—Thomas B. Lane, Esq.

TEMPORARY OFFICES.—22, MOORGATE-STREET.

This company will, in the first instance, confine their operations to the working of the "Spanish Cove" and "Collera" Copper Mines, in the parish of Kilman, on the South-Western Coast of the County of Cork, the mineral wealth of which, and the surrounding district, being so fully developed by the opening of the Crookhaven, and other adit-mines, any repetition of it is unnecessary; but other mineral leases of the greatest value for investments, having been offered in several quarters to the directors, they have, upon mature consideration, deemed it prudent to adopt a name and capital, which may enable them to extend the sphere of their operations hereafter.

The extraordinary success which has attended the numerous existing companies for the working of Irish mines is in itself a strong guarantee for the soundness of the present project.

It is a well-known fact that the returns from the mining districts of Ireland are such as have exceeded the most sanguine expectations of the original promoters, and a glance at the Irish Mining Share Lists will demonstrate the truth of this conviction, while considering the limited efforts that have been made, a powerful argument will here present itself in favour of an undertaking conducted on a larger and more liberal scale.

It is needless to dwell upon the unrivalled facilities which Ireland presents in its proximity to the best markets, its improved means of internal communication, its commodious harbours, the cheapness of labour, and other advantages with which Nature has so bountifully endowed it.

The directors court full and searching investigation into the great mineral properties of the peculiar advantages possessed by the before named mines, the leases of which, held at a royalty of 1s.-16d., they have secured on very favourable terms—the vendors of the premises, having agreed to take the entire of the purchase-money for their interest, and in respect of their preliminary expenses and arrangements, in paid-up shares.

The site extends over nearly 500 acres of the parish before alluded to, and the leases are situated on a parallel mineral range with the celebrated Allihies and Berehane Mines, now yielding so large a profit to the proprietors. These mines have been inspected by several experienced mining engineers, and by T. P. Thomas, Esq., of 75, Old Broad-street, from whose reports (which can be seen at the company's offices), it will appear that there are eight champion leases (the principal one fully 30 ft. in width), and several minor ones containing other valuable minerals, as well as copper on the property. The estate adjoins the Crookhaven Mine, the shares in which are now at a premium of above 100 per cent. The locality cannot be surpassed; the water of the Bay of Spanish Cove (wherein vessels of any tonnage can lie at anchor), washes its base, so that the ore can be shipped direct from the mine, and being within 48 hours' journey of London, the port of embarkation of embarking capital in this undertaking may visit and test the value of the property at a trifling expense of time and money.

Both slate and stone quarries are on the property, and the price of labour being low, the necessary buildings can be erected, and the ores raised, and prepared for sale, at a very moderate cost.

Estimates have been laid before the directors for all the requisite steam and other machinery, to be delivered within six weeks on the property; and they are confidently assured that a shipment of ore will be made from the mines within six months after commencing operations, and that at the least 200 tons of ore of the finest quality will be ready for market this year.

Applications for shares to be sent to the company's offices (where specimens of the ore can be examined), to the brokers, Messrs. Dowling and Brothwick, 75, Old Broad-street, and Messrs. J. Stephens and Son, 44, Dame-street, Dublin; or to James Lane, Esq., solicitor, 26, South Mall, Cork, where prospectuses, with reports annexed and forms for application, can be obtained.

COPPER AND GENERAL MINING COMPANY OF NELSON, NEW ZEALAND.—(Provisionally registered).

Capital £50,000, in shares of £1 each, all paid up.—A limited number only will be offered for sale in this country.

DIRECTOR OF THE MINES AT NELSON.—W. L. WREY, Esq., Government Geologist.

ACCOUNTANT AND SECRETARY.—Mr. I. H. BURNAND.

INSPECTORS OF WORKS.—Mr. JOHN HARE, and Mr. THOMAS E. BOTT.

ASSAYISTS IN LONDON.—Percival Johnson and Co., Hatton Garden.

BROKER.—Joseph Davis, Esq., 75, Old Broad-street Chambers, City.

AGENT IN LONDON.—Mr. Joseph STAYER, 110, Fenchurch-street; at whose offices forms of application and prospectuses can be obtained, which to avoid trouble, can be had on payment of 5s., to meet the preliminary expenses, and no other application than the printed form will have attention.

Science has long determined that the province of Nelson, New Zealand, was not only an extensive mineral country, but that its eastern ranges were the depots of rich mineral and metallic ores; among these may be enumerated gold, silver, lead, copper, and coal. This has now been confirmed by the investigations of W. L. Wrey, Esq., whose report was published in the gazette of the colony by order of the Governor, Sir George Grey; and subsequently, by a special committee, composed of the Hon. Mr. STAFFORD, Dr. MONROE, Mr. TRAVERS, Mr. WELLS, W. L. WREY, Esq., Government Geologist (accompanied by the Hon. Mr. MILLION, Crown Commissioner), and Mr. BRUNNER, Crown Surveyor, whose report will be found in the *Australian and New Zealand Gazette* of the 5th March, 1853.

The copper in particular presents itself in such masses as to require no mining, but simply cutting and removing the ore produced to the smelting-works; this is found to average 30 per cent. It is intended to limit the operations of this company entirely to mining, and whatever is required in pursuit of mining and the uses of the ores.

The directors intend to contract with a smelting company in London, to undertake the reduction of its ores on the spot, where every convenience offers for the process being carried on with the greatest economy and conveniences: thus the necessity of exporting the ores in their crude state will be avoided, and prove advantageous, by enabling the company's officers to personally inspect the reduction of their ores. The working capital of the company is small, compared with the magnitude of the undertaking.

No doubt whatever is entertained that the amount suggested is equal to every requirement, inasmuch as the Burra Burra, of South Australia, commenced with only a capital of £12,000. The profits realized from some of the richest copper mines by expensive machinery give the following results:—

Subscribed..... Dividend in 1853. Present price.

GOLD IN AUSTRALIA.

Some further papers, just presented to Parliament on the Australian gold discoveries, bring the correspondence which has taken place between the authorities of the respective colonies of New South Wales, Victoria, and South Australia and the Home Government down to the latest period. With regard to New South Wales, the most interesting point to be noticed in these documents is the general concurrence of opinion as to the extraordinary extent of the deposits in that colony, and the complete way in which it will cause all mere rumours that may hereafter be circulated of a failing supply to be disregarded. The reports are from Mr. Hargraves, Mr. Hardy, the Rev. W. B. Clarke, and others. Mr. Hargraves, after an experience of seven months in the western portion of the colony, concludes his description by saying, that "no part of California which he has seen has produced gold so generally, and to such an extent, as Summer Hill Creek, the Turon River, and its tributaries." The Rev. Mr. Clarke states, that "his geological researches enable him to assert that gold is distributed, although in variable quantities, over a region in the colony of New South Wales alone embracing an area of 16,000 square miles." Under date of June 3, 1852, he further states, "for nearly nine months I have been travelling from day to day over fresh evidences of the general distribution of gold." In a detailed review of the existing condition of the eight principal fields in the western and southern part of New South Wales, Mr. Hardy, the Chief Commissioner of Crown Lands, describes them all as offering ample remuneration for labour, and as being at present comparatively unworked, owing to the superior attractions of the neighbouring colony of Victoria. "At Ophir," he says, "although there were at one time 800 persons there making 17. per day, the gold has scarcely been touched. The bed of the river has never been attempted." At the Turon, also, "there is no doubt that a most rich and abundant gold-field remains comparatively undisturbed." At the Merion, where the Great Nugget Vein Company were about to commence operations, repeated observations had convinced him that there is no creek for a great many miles about that part of the country that does not produce gold in abundance." In fact, this district, the great basin of the Macquarie, has been only sufficiently worked to show that its production is very great, and that it may almost be called unlimited in extent." At Tambaroora, where there are about 800 diggers, there is "room for thousands." On the Abercrombie, at Tuena Creek, the production of gold is as great as anywhere else, but there are only 100 persons at work; and "nowhere is the want of population in developing a gold-field more observed." There are hundreds of spots the appearance of which "would justify the expectation of finding a great yield of gold, but which are untouched." In the southern district, at Major's Creek, on the Araluen, "thousands of persons will at some future day find employment." In all cases of perseverance very large gains were invariably obtained; but from here, as elsewhere, a large number of the diggers had emigrated to Victoria, and the place remained undeveloped from want of labourers. On the Mungarlowee River, again, another instance is presented of the necessity of a large number of diggers to develop the resources ascertained to exist. "There is no reason to doubt but that that river and its tributaries, through an extent of 50 miles, will be found ultimately to produce as much gold as any other place. Rich fields for the employment of thousands lie in the neighbourhood, but little will be known of their real value until a much larger population is collected. Quartz veins, apparently of much promise, have likewise been found." With regard to the northern field, comprising the Peel River, &c., there are several communications from Mr. Durbin, the Commissioner in that district, but the population has yet been too limited to admit of any definite results. It had been indubitably established, however, that gold existed over a very large space, and that at Bingara, in the Gwydir, a field is reported to have been discovered which seemed richer than any yet known in the colony. "One or two experienced diggers had said that they had never seen anything approaching to it. A man named James Watson sold 22 ozs. of gold, all obtained with a tin dish and a spear blade between Saturday and Thursday; and another sold out 1 lb. avoirdupois in two days, with no other tools than an iron spoon and a knife." This information is dated the 19th of July last, and looking at the remote and solitary part of the country whence it comes, some time will probably elapse before more ample particulars are received. With regard to the prospects of the Australian Agricultural Company, there are no new details; and the only passages about them in the Commissioner's reports, dated respectively May 14 and July 7, are as follows:—"I anticipate that rich diggings will eventually be opened over the Australian Agricultural Company's grant. The geological structure of this grant appears to be schistose slate, intersected by veins of quartz; the slate protrudes in all the creeks, and very generally over the whole extent of country from the dividing range to Tamworth. The bank diggings on the River Peel, whether the water permits of their being worked, are highly remunerative. The quartz veins on the Australian Agricultural Company's land is, I conceive, of great richness; and I have every reason to believe that other quartz veins of equal richness will be found extending, not only over the Australian Agricultural Company's grant, but also over the Crown lands on the right bank of the River Peel."

MINING IN AMERICA—LEAD MINES.

[From the *New York Herald*, March 12.]

The following table exhibits the shipments of lead from Galena for the year 1841-1851, inclusive, and the value of the same at \$4 per 100 cwt.:

Years.	Ibs.	Value.	Years.	Ibs.	Value.
1841.....	29,749,900	\$ 1,189,996	1847.....	50,999,303	\$ 2,033,972
1842.....	29,424,329	1,176,973	1848.....	45,783,737	1,991,349
1843.....	36,878,797	1,475,151	1849.....	45,985,839	1,859,433
1844.....	41,096,933	1,641,451	1850.....	41,185,900	1,650,436
1845.....	51,144,722	2,045,792	1851.....	34,300,384	1,380,015
1846.....	45,907,938	1,920,317			
Average for eleven years.....	41,727,023	1,660,080			

N.B.—It is estimated that at least 90-lbs. of the lead shipped from Galena is raised in Wisconsin, and not more than 10-lbs. is raised in Illinois or Iowa, and this is more compensated by the amount of Wisconsin lead shipped from Potosi, and from Milwaukee and Chicago, of which no estimate is made or notice taken.

Total valuation of exports at the ports of Kenosha, Racine, Milwaukee, Port Washington, and Sheboygan, Manitowoc, and Green Bay, for the year 1851..... \$ 2,079,060

Reduced 987,840 lbs. of lead, included in the above statement, at 39.513 cents per lb.

Total valuation of exports, including lead..... 2,039,447

Total valuation of lead exported in 1851..... 1,380,015

Total exports..... \$ 319,562

There are also large quantities of lead shipped at different points along the Wisconsin and Mississippi rivers, the precise amount of which no data has been furnished which an intelligent estimate can be made.

To the practical miner, as capitalist or operative, the lead region of the Upper Mississippi offers the most substantial inducements to settlement. The exceeding abundance and richness of the mineral, the comparative ease with which it may be worked, and the high price it commands the moment it is brought to the surface, make it an industrious and prudent operator a highway to wealth. New leads of the mineral have been recently discovered in the mineral district; and as increasing emigration to that section of the State promises to replace the California draft, to meet the growing demand for the mineral. The steady advance in the price of lead which has prevailed for five years past is indicative of a gradual but decided extension of its uses in the arts. There is no ground for apprehension that the supply will outrun the demand, or be able to work a reduction of the wages of labour and profits of capital in this industrial occupation, for some years to come.

The copper mines of Lake Superior are of established celebrity throughout the world, and open an inviting field for enterprise. The mining interest in that region is losing its character of adventure, and is attracting the attention of the prudent capitalist and the practical miner, as a remunerative branch of business.

The iron mines of Wisconsin have not yet been opened to any extent, but are worthy of the attention of the emigrant. There are rich localities of ore near the waters of the Rock, and on the Upper Mississippi and its branches.

THE COST-BOOK SYSTEM.

CORNWALL SPRINGS ASSOCIATES, BODMIN, MARCH 21.

MR. AND OTHERS v. WYLD.—Mr. M. Smith and Mr. Karslake for plaintiffs; Collier for defendant.—Mr. Karslake having opened the pleadings, Mr. M. Smith stated that this was an action brought by Messrs. Sampson and Lanyon, gunpowder-makers of Kennel Vale, to recover a sum of £50 for gunpowder supplied to the Jane. The defendant was the well-known map-seller in London, and formerly a representative of Bodmin in Parliament. He was a shareholder in the Wheal Jane, which was started in 1843 or 1844, in 250 shares, of which he held 16 shares from the commencement of the mine to its cessation in 1848. The gunpowder in question was supplied in the end of 1847 and the beginning of 1848. The mine was conducted on the Cost-book System, and the books were partly kept in London, where the meetings of the shareholders were held; and the orders for supplies were given by clerks residing at the spot. The case for the plaintiffs would rest on the proof that would be given of the supplies of gunpowder, and that Mr. Wyld was an adventurer. When Mr. Wyld was applied to, he did not deny his liability, but objected to being compelled to pay more than his proportionate share with other adventurers; but the jury would decide his lordship, that if a man held but one share in a mine he was liable for the whole of its debts. The witnesses examined in support of the claim were James James, the younger, of Goldsmiths, a clerk at the mine in 1847 and 1848, and John John, also clerk at the mine in those years.—Mr. Wyld's signature in the cost-book admitted by his counsel to be in his handwriting, Mr. Smith read from the book produced (but which Mr. Collier objected to being called the cost-book) the name and minutes of proceedings signed by Mr. Wyld and many other adventurers. The dates of these ranged from Jan. 10, Sept. 1846; to the 28th Sept. 1846, being the date under which Mr. Wyld's signature appeared. The resolutions showed the mine was in debt, and was still going on at the date of Mr. Wyld's last signature. The witness Richards stated that he believed there were still arrears of costs of the mine.—It was further shown that at the commencement of the book put in, the date of the 27th February, 1845, there was a list of shareholders in Mr. Wyld's name as the holder of 16-25th shares; and also that there was no record of any transfer of those shares from Mr. Wyld.

At the suggestion of the public, that the case was incomplete, and, therefore, could not be tried, the court adjourned, either by Mr. Wyld or by any agent duly appointed by him to give such orders. There was no evidence that Mr. Wyld was a shareholder, insomuch as the proof of that allegation must appear from the cost-book, had not been produced, and there was no proof that the book produced had been accepted from the cost-book. And, even assuming him to be a shareholder, there was no proof of authority given by him for the ordering of these goods. The learned Judge decided that the case must go to the jury.—Mr. Collier then addressed the learned Judge summed up in favour of the plaintiffs' case; and the jury gave a verdict for plaintiffs, £50.

GOLLOWAY'S OINTMENT AND PILLS, EFFICACIOUS REMEDIES FOR THE BAD LEGS AND GENERAL DERMATITIS OF THE SYSTEM.—Mrs. Gibson, 31, Bailey Newgate, Newcastle-on-Tyne, had been a sufferer for a considerable period from dreadful sores in her legs, so bad that she was almost incapable of walking, consequently health had become very much impaired. She tried many remedies without any benefit; but by the recommendation of others who had been cured by Golloway's ointment and pills, she commenced using them, by which means her legs completely cured, and her health re-established. Mr. J. M. Cennell, druggist, 10 Bedford-street, Strand, will authenticate this cure.—Sold by all druggists, and Professor Holt's establishment, 244, Strand, London.

Original Correspondence.

MINING LAWS.

SIR.—It was with great pleasure that I read in your last week's Journal the announcement that Mr. T. A. Readwin had generously and patriotically offered a premium of twenty guineas for the best paper descriptive of the Cost-book System. For an act so noble, and so entirely connected with the mining public, he most assuredly deserves their most respectful and heartfelt acknowledgments. To say the least of his munificent act, it is a step in the right direction towards obtaining a thorough and perfect knowledge of the *Cost-book puzzle*, and will, doubtless, be the direct means of settling, for ever, that *vezata questio*. So far as regards myself, I confess that I look upon the competition and its results with the greatest interest, believing that it will shed the required light upon this abstruse subject, and that thenceforth public opinion upon the cost-book will be soundly based.

In reply to "R. P. H.'s" communication, also in your last week's Journal, I have to state, that I am unacquainted with, and I dare assert that there does not exist, any legal decision to the effect that companies formed upon the Cost-book System, *out of the jurisdiction of the Court of Stannaries*, are illegal. I am the more confident in my assertion, from the close attention I have professionally paid to this subject for many years. Had such a decision been given, I cannot think it would have escaped my notice. As regards "R. P. H.'s" comments upon the cost-book case, recently adjudicated upon by Vice-Chancellor Stuart and the Lords Justices, it may be remarked that adventurers in a cost-book company have, in common with partners in an ordinary partnership, a double relation—namely, the one (which formed the basis of the judgment of Vice-Chancellor Stuart) having reference to the duties and obligations of the adventurers, *inter se*; and the other (which formed the basis of the judgment of the Lords Justices), in reference to the adventurers and third parties—viz., creditors of the mine, and others. In the former case, that is, *inter partes*, the rules of the company, if legal, are obligatory and binding; and thus it was that the right of the contributory to determine his liability, *so far as the company was concerned*, was undisputed.

In the latter case, however—that is, when the Court has to consider questions arising between adventurers and third parties—it is compelled to ascertain of what facts such third parties had notice at the time of their contract with the adventurers. The question in such a case must always resolve itself into one of *notice*. Now, in the case referred to by "R. P. H.", the Court had to deal with the obligations of the adventurers with third parties, such third parties being creditors, who had no *notice* (for eight years) from "R. P. H.'s" statement of the case) of the regulations of the cost-book. If so, the case, so far as regarded the dispute before the Court, ceased to be one having exclusive relation to the Cost-book System, and became one entirely governed by the general and common law of partnership. As, however, the legal facts of any given case must be accurately ascertained before the question for consideration can be propounded (and they are not ascertained in the case under consideration), it would be absurd, and a mere waste of time, to speculate upon what the decision will be. I, however, suspect that "R. P. H." will find that the point between the contributors and the official manager will turn upon *notice* to the creditors of the regulations under which the company was constituted. The interest which the case has excited shows it to be one of some importance, and, therefore, "R. P. H." will be doing good service if he makes known its sequel to the readers of this Journal.

I have anxiously looked, in vain, for a parliamentary announcement of Mr. Collier's proposed bill on cost-book companies. So far as regards any suggestions I may be enabled to make, I will most cheerfully give them, not only upon that subject, but upon several other inconvenient portions of our mining code. In reference to the amelioration of the mining laws of this country, I have to suggest that you, Mr. Editor, will allow all communications to be addressed to the *Mining Journal*; and when sufficient facts are obtained, digested, and approved, I would undertake that they be laid before such of our legal dignitaries whose duty it is to deal with the defects of our judicial system.—T. T. : Temple, March 30.

THE COST-BOOK PRINCIPLE.

SIR.—When I last addressed you, in your Journal of the 25th of Dec. 1852, I intended to proceed with this subject as soon as there would published an authorised report of the Pennant and Craigwen case, noticed in the *Law Times* of the 20th of November prior; but as I find that Vice-Chancellor Stuart's order has been discharged upon a question of fact, not of law, and that the future discussion of that case is not likely to rest on the point of the legality of the company's formation under the Cost-book Principle out of the Stannaries, I shall now resume my observations for whatever they may be worth. The first step in the consideration of the subject is to ascertain the character of this much abused and disputed principle. In doing so, I shall not grudge the labour of endeavouring to satisfy your readers on more than one of the important details of the principle, respecting which erroneous practice very generally prevails.

As the preliminary of our controversy, I shall now confine myself to the very necessary question—What is the definition of a cost-book company; and what is the legal characteristics which distinguish this peculiar class of partnerships? With regard to a definition, I consider, after the most mature reflection, that I cannot do better than repeat what I before gave in accordance with the experience of "Argus"—no mean authority in Cornish mining:—

"It is a mutual partnership, where the partners manage their own affairs, each individual being responsible for the whole debts of the partnership [incurred by express authority], but no partner [or servant] having power to pledge the credit of his partners without their consent. The names of the partners, or 'adventurers,' are registered in a cost-book; the accounts of expenditure are there also entered, and should be paid every month. The adventurers meet once in two months [or quarterly in tin mines] to investigate their affairs, audit the accounts of their agents, vote funds, &c. A code of rules and regulations is generally adopted for the management of minor matters, and which form a part of the grand principle of the cost-book."

The Cost-book System is, therefore, widely apart from other commercial associations; and it appears requisite to show on what basis the distinction is founded. Some have regarded the principle as a local, others as a general custom; but, in reality, it emanates from the practice of a special craft, as mining was anciently considered, and necessarily subject to different rules of law, by reason of the particular mode of conducting its business. Such also was the form and effect of partnership in shipping, which, by the Ship Registration Acts, was converted into a statutory exception; but that had been originally what I aver the Cost-book Principle to be—a custom of craft, and not of place; both classes of partnerships bearing radically an analogy to one and the same type, of some remote antiquity.

There is a very manifest reason for treating the Cost-book Principle as a custom appertaining to the business or craft of mining; for it is clear that there can be no mining without an occupation in, or some right to land with its appendant royalty, which creating a kind of tenancy, or seisin, deals with reality; whilst other partnerships, unless statutorily authorised, can only deal with personality. As in their origin mining enterprises consisted exclusively of those engaged in the actual operation of raising the ores, and preparing them for sale, there was, consistently with the principles of the common law, a *quasi* tenancy in common—each adventurer being entitled to his distributive portion of the produce, separable and in ascertained ratio. When such companies embraced adventurers, this principle extended to them; and such a distinction was recognised in the well-known judgment of Lord Tenterden in the case of *Vice v. Anson*. "The partnership, if any," he says, "is not strictly a trading partnership; it is one formed for the purpose of working a mine, or species of real estate."

The ordinary principle of partnership, on the other hand, has the operation of a *quasi* joint tenancy, for a reason obvious to a lawyer—that dealing with a community of right in personality, the absolute estate being delegated to a board of directors, there can be no separation of interest until the determination of the contract by dissolution or otherwise. This distinction will be more apparent, when we consider that in ordinary joint-stock partnerships the whole of the rights in the property of the company becomes, by the principle of delegation, equitably vested in a board of directors—the legal estate remaining in trustees. The interest of a shareholder in such a company is, in fact, in the capital and not in the property; or, in other words, each proprietor of stock is entitled to a certain number of aliquot portions, or shares of the nominal capital of the company, with the equivalent proportion of the sum allocated to pay dividends in respect to such shares; and on dissolution he becomes entitled to his distributive portion of the surplus value of assets over liabilities, but by no means has he any estate in the property beyond the indirect representation above described.

In cost-book companies the very essence of the partnership is, on the contrary, that there cannot be any delegation at all for administrative purposes, and for ministerial purposes only in respect to the functions absolutely necessary for the progress of operations. Therefore it is that each partner has a direct interest in the property of the cost-book company; and so the same canons of law as are applicable to other joint-stock associations cease to govern such mining partnerships. Bearing in mind that the cost-book right in the subject of partnership is a *quasi* joint-tenancy in common, and that of other mercantile associations a *quasi* joint-tenancy, all the rights and liabilities of both conditions are, in my opinion, perfectly compatible with the municipal law, administered in favour of the peculiar craft of mining, favoured as it ever has been, with the view of developing to the utmost the mineral resources of this kingdom.

I have termed this principle a custom of craft, because we find it in those mining localities where mining customs have been carefully preserved; that is, in the Stannaries and High Peak jurisdictions. But here I am met with this objection—that the custom in those places is dependent on local jurisdictions, and that, therefore, it is a *local* custom. This I have already answered; I shall repeat my remarks. From time immemorial the cost-book was applied to copper mines and quarries; the Stannaries jurisdiction was not extended to copper mines till 1836, and does not, even now, comprise quarries; but the exemption of the 63d sec., 7 and 8 Vic., cap. 110, enumerates "mines, minerals, and quarries;" and, therefore, it could not have regard to any condition of the cost-book, merely restricted to the limits of the Stannarial courts.

In fact, the cost-book had at the passing of the Act a very extensive application in Wales; and by the ordinary rules of construction the clause in question, without some evidence of such intent, could not be restricted to a local practice in Cornwall. The words of the section are as universal as the legislation of the statute itself; the exemption is co-extensive with the law.

The rule is, that companies established—that is, having an establishment, with administrative faculties (not a mere agency)—in any part of the United Kingdom (except Scotland, and some specially excepted partnerships) and Scotch agencies, for any commercial purpose, or for any purpose of profit, &c., shall be registered, and be subject to the provisions of the Act. What is the exception of the 63d section? That any such companies "formed for the working of mines, minerals, and quarries," on the *Cost-book Principle*, shall not be so registered or subject to the Act. A man must be inattentive, not only to the rules of legal construction, but of common language, to hold that there can be any other interpretation. An "establishment for profit, or commercial purpose," as regarded by the statute, and not the place where the produce is raised, or the operations carried on from which that profit is realised, or that purpose effectuated, is the characteristic which consigns project to the Registrar of joint-stock companies; and the same establishment of a company, formed on the Cost-book Principle, takes a mining adventure out of his hands.

It has been urged that this applies solely to English mining; but this ground is wholly untenable, for it would lead to an unanswerable dilemma. Either the office for administration (assuming it to be in England) is an establishment for the "commercial purpose" of working "mines, minerals, or quarries," and clearly exempt; or, if a foreign or colonial mining company, of which the mining sett is pretended to be the establishment, in that case the company could not be within the purview of the Act, as that establishment would not be within the United Kingdom.

It is one thing to say that there is no cost-book out of the Stannaries, another to allege that there are pseudo cost-books beyond that jurisdiction, formed under pretences, and for purposes, by no means recognised by the Cost-book Principle. These allegations are made in the one breath by those who wish to chain the cost-book to a mere corner of our mineral ground. The former will not, as I have shown, stand the test of legal examination, but the latter is undoubtedly correct; and on that subject I shall, in due course, animadvert.

March 28.

THE COPPER TRADE.

SIR.—The nominal average standard and produce of the ores sold at the ticketing on the 24th inst. are given as—Produce, 5*lb.*; standard, 16*lb.* 1*oz.*. The quotations should be—Average produce, 6*lb.*; average standard, 15*lb.*, calculated at the actual returning charge or cost of smelting ores of the above-mentioned produce. The standard of the ores sold at Swansea on the 22d inst. was equal to 11*lb.* 15*oz.* It will be seen that the standard is on the rapid decline, and although the effect of checking the demand has been successful by an extraordinary advance in the price of copper, a permanent increase in the quantity of ore for sale has not been established; and the smelters will do wisely to recollect, before they make any considerable reduction in the standard, that the principle of working our Cornish mines is entirely altered since they have become an object for jobbers, and that they do not possess resources as they were wont to do, to which, in some measure, the late scarcity of ores is due. THOMAS IRVING HILL.

Gray's Inn-square, March 31.

COPPER MINING IN THE UNITED STATES.

SIR.—The style of "A. B.," of Glamorganshire's, communication upon the subject of copper smelting, so nearly corresponds with that of your "Constant Reader," who has favoured me with his notice, that I conclude the two letters emanate from the same individual. And a most pugnacious gentleman he appears to be,—adventure a descendant of the doughty Captain Fluellen; however, as I much prefer his logic to his leeks, I had rather endeavour to digest the one than swallow the other, and shall not quarrel with him on the score of a little caustic brusqueness.

The fact of copper smelting works being in operation at Liverpool were unknown to me; it is, also, unknown on the other side of the Atlantic. In London, and throughout this country, a general ignorance prevails upon

agement of mines, and the sale of their produce, has been anything but advantageous to the shareholders. Only one copper mine out of 50 in operation has paid any dividend!

It rests with the copper smelters of Liverpool to establish with the United States a large business in copper and copper ore: all they have to do, is to promote facilities for its transmission to their port, and to simplify and reduce the expenses connected with its sale. If they decline to move themselves in the matter, the American smelters will continue to monopolise their profits, and, at the same time, to impede the progress of the development of this country's mineral resources. Thanking you for the kind liberality with which you have admitted my letters into your columns, I retire from them for a season, whilst I seek for fresh information at my trans-Atlantic diggings; which, on my return, I shall be happy to submit for the approving consideration of your able correspondent and my kind friend, your "Constant Reader."—C. March 24.

RAILWAY ACCIDENTS.

Sir.—Having with much regret read the late frequent railway accidents, it has induced me to give the master much serious consideration. As having been formerly a partner with my brother, James Nasmyth, of Manchester, my knowledge of the construction of locomotives leads me to think that through the medium of your columns I may be able to suggest something that might greatly tend to ensure the public safety.

I am well aware that many of the suggestions I may make have already appeared in the form of ably-written communications to your paper; but I hope I may not be accused of borrowing ideas from any such preceding letters, if, in wishing to be understood, I make use of similar remarks. I will endeavour to be as brief as possible, and keep to facts, so as to allow you and the public to judge of the correctness of my views. I will also here state that I have not the slightest interest in any railway or engineering company whatever.

Your kindly inserting this I feel to hope may do some good; and should the directors of the company not make any alterations, I hope the shareholders will take the matter up, and they will soon find the lines pay better, as the expense of the wear and tear, or maintenance of the way would be much reduced:

1. That each engine should have two or more safety-valves, one completely cut off the control of the engine-driver or stoker, which ought to be of such dimensions as to safely allow the free escape of all sudden accumulation of steam, from whatever cause. This valve ought to be examined at the arrival and departure from each main terminus, by some competent person, held responsible for the correct action of the valve, which prevention would prevent the bursting of the boilers.

2. I consider that the present pressure, as stated in the recent evidence, of 150 to 200 lbs. on the square inch, is highly dangerous. It is, I am aware, for the purpose of saving fuel, by using the steam expansively; but being incompatible with the public safety, such economy should be abandoned.

3. The pressure before named can only have been used of late years, as I have never known the safety-valve to be loaded beyond 70 or 80 lbs. to the square inch, I consider pressures above this unsafe and quite unnecessary, also that many engines now in action are of such size as to be quite unfit for use even at this pressure.

4. As an explanation of the trains running off the lines, I would suggest the great speed combined with immense increase of weight of the engines, which by the mechanical law will have a tendency to keep in a straight line, like a ball fired from a cannon, and must, in going along the curves on the line, at such a speed, cause a great pressure sideways on the rails, and when meeting with the slightest obstruction is certain to strain the permanent way, or render it very probable the engine getting off the line.

The chief danger would be at once removed, if railway companies would reduce the speed of their engines to the safe and steady rate of 30 miles per hour.

GEORGE NASMYTH, C.E.

HOLLOW FLOAT PADDLES v. NO PADDLES AT ALL.

Sir.—Although I am a constant reader of your eminent periodical, and take a peculiar interest in all novel propellers, I cannot either recollect or find which is the invention alluded to by "An Engineer," in your Journal of the 26th of February, as having been "recently mentioned in your Notices to Correspondents;" which invention, he says, "is anticipated by Rapson's patent." If this be Prof. Crestadore's smooth cylindrical propeller, as it would appear by the invention being said to have been made by "an Italian professor," perhaps you will allow another engineer, who is acquainted with him, to state that Crestadore's patent is to abolish the paddle-wheel; Rapson's is to "improve it," which shows a perseverance in what Prof. Crestadore considers as an error. Rapson's improvements consist in constructing the floats of the paddle-wheel not of single boards or planks, as commonly used, but of hollow vessels; and in the drawing appended to his specification a paddle-wheel is represented, composed of five of these floats, or hollow vessels, each being formed of two copper cones united at the base, resembling in appearance a buoy. Crestadore's invention is to abolish altogether the floats or paddles "of whatever description they may be," as they are considered by him to be a mistake, as far as the propelling purpose is concerned. So, Rapson's claim is especially for these hollow floats; Crestadore's claim is especially for the absence of any floats whatever. He is not a "foreigner," as far as it regards a fair knowledge of the mechanical progress in this country; still less "ignorant of what has previously been patented" concerning propellers; as when he several years since came to England, and was struck with what he calls the impropriety of paddle-wheels and screws, as compared with more smooth cylinders to propel ships, before he applied for a patent for such a scheme he remained more than two years considering over the subject, and acquainting himself with what had previously been patented in this and other countries; so that not only was he aware of the "hollow boat paddles," mentioned by your correspondent, but he knew further, that Rapson himself had been long before anticipated by a similar and far better contrivance, as your correspondent may perceive, if he will read the account of the patent for propelling ships granted to John Johnson Isaac, the 5th of July, 1823, inserted in the Repository of Patent Inventions, vol. vii., p. 47, 1830, of which patent he was certainly ignorant. An American, who lately presumed himself to be the sole inventor of the same contrivance, and to oppose, on such account, Prof. Crestadore's patent—that is, "a paddle-wheel, the body of which is to consist of a hollow cylinder perfectly impervious to water." As far as that, such a contrivance would have completely anticipated Prof. Crestadore's principle, had it been patented, and employed for propelling purposes. But such is not the case. The patentee entertained no idea of a smooth cylinder being capable of any tractive power; and, for the purpose of propelling, he proposes and employs "paddles attached to its surface all round at regular intervals angular in its radial lines or planes;" and he uses the hollow cylinder only on account of its being "capable of floating, and, of course, being self-supporting," just as Mr. Rapson, 13 years afterwards, proposed his floats to be hollow vessels, on account that "in passing by he says in his specification, the perpendicular when under water, they will by their levity tend to rise to the surface;" whilst Prof. Crestadore claims "the purpose of propelling," and disclaims the purpose of giving buoyancy or levity, or of suspending the ship, or any other purpose, not being propelling purposes. Of course, he also prefers to have the cylinder hollow, and water tight, when made of such dimensions as the paddle-wheels are at present; and that for reasons which are obvious enough, but which we have nothing to do with the principle contemplated in his patent. His propeller consists of a smooth cylinder, or cylinders, no matter whether hollow or solid, in opposition both to the indicated paddle-wheels of whatever description, and to the pitch of screw herefore recognised as indispensable, for obtaining a tractive power. Prof. Crestadore may be wrong in such an idea as this, but his principle is diametrically opposed to all others above-mentioned.

Having now disposed of your correspondent's remarks, I think it will be acceptable to you, who so ably noticed Prof. Crestadore's scheme in your Journal of the 13th of Nov. last, to be informed that arrangements are in progress for a trial. Meanwhile, I may mention that a striking phenomenon has just been observed, which appears to support Prof. Crestadore's theory that is, a series of experiments recently instituted for the purpose of testing the performance of the various screw propellers, which shows that a great advantage is obtained, contrary to what was expected, from the surface of the screw being as smooth as possible, so that a very polished surface is now considered a matter of importance. This is, according to Prof. Crestadore, a first step towards a correct idea of a tractive power; the next is to look to the weight of water displaced by a cylinder, when properly applied, in lieu of the gearing action of paddles or of pitch of screw, as the legitimate fountain of means of propelling.—London, March 7.

ANOTHER ENGINEER.

Sir.—I wish to make a few additional remarks on the improved siphon, specimens of which may be seen, and tested on the premises, in Orchard-street, where they are manufactured. They will be found, with one cylinder fitted up, to act as a lift and force-pump, and will raise water from 25 to 50 ft.—this is done altogether by pressure. The handle may be reversed to command the required power or pressure, which will be found not to exceed one-half of any other apparatus in use, by means of the improved cylinder and valves, and this, on a small scale, with pipes of 1½ inch in diameter. There is also one fitted up with two cylinders, with frame and handle complete, which will raise water from 50 to 75 feet in the same manner as the one above, and will be furnished at a greatly reduced price to any lift and force-pump that has ever been in use by the public, of the same efficiency. The pistons in these cylinders are of a good construction; the vacuum can be ensured by the regulating-valve. These siphons are highly adapted for all mining operations: with gutta percha pipes nothing can equal them; but for scientific gentlemen who may wish to fit them up on their premises, I believe glass pipes will be found preferable. The cylinders, clisters, unions, and valves, being of brass, these apparatus will be very durable: the valves will not wear, having no friction. These siphons will regulate themselves, when used, and it will be seen that any required height may be attained by placing one siphon above another, the manner of connecting them being also shown. I have observed the pipes for these siphons are intended to be 1½ inch in diameter; but on the same principle, they may be fitted up with pipes of larger dimensions, and the water will rise more freely in them. Any person wishing to test, or see them tested, may have an opportunity before ordering by calling at Orchard-street (see advertisement), where every attention will be paid. Having already observed that these siphons are highly adapted for all mining operations, I should think them particularly so for the drawings, and arrangements are preparing to furnish any number that may be required.

March 26.

MOUCATIS'S IMPROVED SYPHON.

Sir.—I wish to make a few additional remarks on the improved siphon, specimens of which may be seen, and tested on the premises, in Orchard-street, where they are manufactured. They will be found, with one cylinder fitted up, to act as a lift and force-pump, and will raise water from 25 to 50 ft.—this is done altogether by pressure. The handle may be reversed to command the required power or pressure, which will be found not to exceed one-half of any other apparatus in use, by means of the improved cylinder and valves, and this, on a small scale, with pipes of 1½ inch in diameter. There is also one fitted up with two cylinders, with frame and handle complete, which will raise water from 50 to 75 feet in the same manner as the one above, and will be furnished at a greatly reduced price to any lift and force-pump that has ever been in use by the public, of the same efficiency. The pistons in these cylinders are of a good construction; the vacuum can be ensured by the regulating-valve. These siphons are highly adapted for all mining operations: with gutta percha pipes nothing can equal them; but for scientific gentlemen who may wish to fit them up on their premises, I believe glass pipes will be found preferable. The cylinders, clisters, unions, and valves, being of brass, these apparatus will be very durable: the valves will not wear, having no friction. These siphons will regulate themselves, when used, and it will be seen that any required height may be attained by placing one siphon above another, the manner of connecting them being also shown. I have observed the pipes for these siphons are intended to be 1½ inch in diameter; but on the same principle, they may be fitted up with pipes of larger dimensions, and the water will rise more freely in them. Any person wishing to test, or see them tested, may have an opportunity before ordering by calling at Orchard-street (see advertisement), where every attention will be paid. Having already observed that these siphons are highly adapted for all mining operations, I should think them particularly so for the drawings, and arrangements are preparing to furnish any number that may be required.

AN ENGINEER.

Sir.—Much has been said of late antagonistic to mining, and detrimental to its character in the commercial world, still, as a profession, it is worthy (if need be re-enforced) of being upheld by the whole combined powers of the nation. Mining is one of England's greatest interests; it is a vital principle, without which we could not possibly maintain our present proud position among the nations of the earth; it is the inspiring of an integral part of our national industry, giving impetus to our manufactures, power to our country, and placing us in the highest position over attained unto by any one nation since the creation of the world. Then, as a source of personal profit it is altogether unparalleled. There never was, nor never can be, such amazing fortunes made, and so rapidly, in any other pursuit as in mining. It may, perhaps, be said there is a moral loss; so there is, and so there is in every other branch of business, too. But, if we leave all the abhorrent schemes and all the jobbing out of the question, I think that the amount lost fairly and honestly in direct mining pursuits would be an insignificant figure, compared to the net amount gained in the like pursuits. I know there are a great many fallacies to be thrown aside. The working mines entirely to make market of the shares is a fallacy, and ought not to be tolerated, because what it puts into one person's pocket it abstracts from another's, and cannot be said to be gained or lost in mining at all. The bringing ore to market from shallow depths when it will not pay for abstraction, and perhaps not a moiety of the dressing costs, is a fallacy, because the same money might be much more advantageously expended in exploring and sinking to deeper levels.

Now, everybody knows that people who adventure in mines do not, from the fact of being adventurers, necessarily understand the business; neither can they, for it is a business for a man's life, and let a man be in it as long as he may he has still something to learn, and will continue to learn as long as he continues in the profession. Mining adventurers are for the most part mercantile men, an excellent class for directors and committees, to manage and watch financial matters, which (as mining generally requires a large amount of capital to carry it out) is certainly of no minor importance; but as to the practical part of mining they must be as ignorant as the man in the moon, if there is one there; therefore they have to exercise the more caution in their choice of officers, for if you have not those in whom you can place unlimited confidence, your progression will be anything but satisfactory, and your mining anything but effectual, for the fact of want of confidence in the party who manages will cramp his energies and nullify his measures, by dividing and scattering his plans, so that you may drag out a miserable existence, at length stop, and others reap the benefit of a part of your labours. I say of a part of your labours, for in many cases a great deal that is done is not only useless, but detrimental to the proper development of the concern. Before beginning to work, a proper report should invariably be made out to the capabilities of the mine, the proper mode of working, and the cost likely to involve in carrying it out, not half way, but thoroughly, to give it an effectual trial: if all these things are not satisfactory, after due examination and consideration, we should not want adventurers; the only thing we should have to fear would be that there would be too many of them. Every working man would have a mine of his own. Farmers would leave their plough, and Parsons their books, and all and every one would dig away for himself, like the people do now in Australia and elsewhere, because they would naturally leave every branch of business for that freedom which always exists in an independent state. But I believe no one will desire such a state of things in this country. Capitalists would rather have the security mining offers, when carried on legitimately and scientifically, than the precarious advantage of digging amid anarchy; the labourer would rather enjoy his crust in quiet, and lie down without danger of his sleep being disturbed by banditti, or perhaps his eyes for ever closed by the dagger of his bedfellow, than the reverse. Still, it may be said mining is an uncertainty; so it is, to a certain extent, but there is very little danger of loss if people judge calmly and considerately; while if they heedlessly begin to work, they will most likely unprofitably end.

That there must be some changes is plain; it is perfect folly to suppose that while we see all the world going ahead in the march of improvement towards perfection, there is no room for improvement in our present system of mining; we all know better, but the plain truth is, we know not at which end to begin. First, then, I would suggest, knock up all illegitimate scheming. If there could be any punishment devised for a man who would recommend that which he is convinced will never be worth anything but for selling shares, I think it would be salutary; but the reverse is often the case, and such people are generally rewarded much beyond their deserts, because it suits the purpose of, perhaps, a few jobbers. This is the department which most requires improvement. Get not only right notions, but honest, straightforward, and man-like motives. Let the determination be to work mines, not shares; that is the rock on which too many split. But turning to the working part. Looking at the system practised in some of the successful mines in Cornwall, and which system is generally understood to be the most proper, you will find it a good one, but scarcely ever carried out to that extent it might be advantageously, either from lack of knowledge or energy, or from not having a sufficient precedent, and therefore from timidity. I am of opinion that we may reasonably expect rich mines 500 fms. deep, or a great deal deeper, but can not think we shall find an unbroken zone at that depth, nor a faulted one, but if we look carefully at the copper mines of Cornwall and Devon, we find the courses of mineral having a regular direction of dip, running in some cases for many miles in length, until it gets so deep, as miners express it, as to be too costly for working. How far these courses run, or how deep, no one knows, but most likely until they come in contact with the everlasting rock; and in most cases, however deep, might undoubtably be profitably worked. By striking out a bold highway, such as should be worthy the genius of the present age, the experience of past ages, and of the highly profitable and honorable profession; by turning to the working of mines of legitimate promise, but which may not warrant such an extensive working as this; if, instead of sinking hundreds of unnecessary shafts, and turning over thousands of loads of rubbish instead of lodes with mineral, driving levels only a few feet from surface, sinking numbers of little good for nothing pits called shafts, or worse than all, hammering away on old men's arches picking the bones after the meat has been carried to market; I say, instead of all this useless expenditure, people were to sink proper shafts at a reasonable depth, according to the situation, explore the lodes in length by extending levels regularly, working the mines in order to make them profitable, instead of for selling shares entirely, then this would be legitimate mining, and would ultimately command its own reward. —W. TREGOT: *Lostwithiel.*

CAWSOHN HILL MINING COMPANY.

Sir.—There has been several statements made in your Journal as to this adventure, and as I have been down to the mine, I think it my duty, for the satisfaction of the shareholders and others interested, to make my statement as to its present working and probable produce. An "Advocate for Legitimate Mining" states, in your Journal of the 12th Feb., that "the tin must be first cut in before it can be cut out," and is not aware of any mineral being taken out yet; made a van from the head of the lode for tin, but was unable to find a particle; and that a level had been driven and allowed to tumble in for want of timber. Now, Sir, with your permission, I must be allowed to confute these statements.

While down at the mine, we pulverized some tinstuff, the produce of which was very large and rich. The specimens of lead and copper we also took out were rich and productive, too; and if the mine is worked with spirit it will make a first-rate paying concern, as the richness of the lodes, and the quantity of mineral they possess, is astonishing. The level mentioned is about half a mile from where the men are at work in the deep adit, where they are making very favourable progress, for which reason they do not interfere with the level mentioned; and as for timber, they have really a good supply, there being several large beams at surface, ready for use whenever required. In the south part of the set, they have taken up a shallow adit level, and driven it west 45 fms., on a large champion lode, about 16 feet wide, very promising for making large quantities of mineral at a shallow depth. About half a mile north of this there is another shallow adit taken up and driven north and west about 130 fms., and cut through three east and west lodes, and two counter lodes. About half a mile from this level they are washing some of the decomposed granite, to try some experiments on the china-clay, of which I have some fine samples in the rough and pulverized state. There are 10 men at work, six driving the deep adit level, and four on the surface. I have several specimens by me, which I brought from the mine, of the minerals and china-clay.—W. STEPHENSON: *Lincoln.* March 25.

CASTLE DINAS MINING COMPANY.

Sir.—A short paragraph in your last Journal announces the fact that the management of this mine has been removed from Bath to London. Now, whether the idea arose from the consideration that I possessed both a knowledge of, and an interest in this mine, or whether arising from my being confined all day to a sick room, and consequently more than usually serious and sedate, it matters not; but I resolved to write on the subject, remebering that sermons can be made from stones—and if we suppose these stones to contain tin, why so much the better. In endeavouring, then, to improve the loss we have sustained, I shall take for my text the paragraph to which I have referred, and which will be found in your Journal of March 26th.

Many of your readers will remember that, about a year ago, Wheal Edward, a mine born in this our ancient city, and for a time nurtured with care, and trained up in the way it should go, was suddenly transported to London, in the same mysterious manner as the mine whose removal we are now called upon to deplore; and as coming events often cast their shadows before, who can tell how soon another, and yet another, of our beloved mining offspring may be spirited away, as if by magic, from before our paternal eyes? In considering the causes which led to these repeated bereavements, we are bound to admit that the mines themselves are quite free from censure. All our mines possess good characters, and are not themselves given to change. Originally selected with commendable prudence, introduced to society in a simple unpretending costume, and the vital principle maintained amongst them with a due regard to economy, they have rapidly gained for themselves a name and a popularity almost unprecedented in the annals of mining history. Wheal Zion, Wheal Edward, Castle Dinas, and Trebunget United are names destined, we believe, to become "familiar to our ears as household words," and, despite of temporary clouds and depressing influences, will eventually "achieve greatness" themselves, and assist those connected with them to achieve a similar position. Perhaps a reason why we cannot keep our mines may be supposed by some to exist in our incompetency—that as provincial, we ought to be content with the honours of office in our parochial district; that, whilst we may be great men as poor-law guardians, churchwardens, overseers &c., we have no right to assume a dignity so overwhelming as the management of a Cornish mine. I do not believe this myself, for certainly, as individuals, the men of the provinces are quite up to the standard of the men of London, in intellectual attainments, commercial integrity, and aptitude for business, and the Londoners themselves admit as much. The only plausible reason, I think, that can be assigned is the magnitude of London itself, and the masses of its population, naturally inducing a centralisation of every commercial interest. We are conquered simply by a superior physical force, and consequently our losses must be attributed solely to the misfortune of living far away from the great centre of business, and not from faults, errors, or incompetency in our official conduct, as managers of public mining companies.

I trust our London co-adventurers will not attempt to rub off this flatteringunction we have applied to ourselves. In all seriousness, it is high time for this spirit of rivalry to cease; we have both a mission to perform—Judah's interest is clearly to lay at peace with Ephraim, and Ephraim's is to abstain from vexing Judah. Our mines are attracted by their own inherent goodness to the great centre, and we, in endeavour to replace them by others equally good; these again to be absorbed in like manner, and so, by constantly contributing our quota of mines to the general supply, be promoters of the general good.—THOMAS GOSSE: *Bath.* March 30.

WHEALS ECKLEY AND PROCKTER.

Sir.—Yesterday, I went to see Wheals Eckley and Prockter; and as my fellow-shareholders at a distance would, no doubt, like to have some authentic account of their newly acquired property, I will proceed to give a plain, unvarnished, and unbiased statement of what I saw. On arriving at a turn of the road, we perceived a small wheel at work on the right; and, on quitting the carriage, we were joined by the captain of Trebunget United, who accompanied us through the set, explaining the position of the lodes, and showing us the piles of promising stuff they had just broken from the back of a lode at a shallow depth. Here the engine-house is fixed, and they are heaving in their engine, which we were given to understand, would soon be in full play. Having come to the boundary of Trebunget United, we passed into Wheal Eckley, which is contiguous, being separated by a hedge only. The ground here soon begins to rise, and as we attained a higher elevation we could not fail to be struck with the excellence of the locality, as just beyond Trebunget United lies Old Trebunget, of far-famed dividend-paying celebrity, which made returns of more than 500,000/-, and we saw at a glance, by the course of the runs of debris, that the Wheal Eckley must possess the continuation of these celebrated lodes coming through Trebunget United. The ground is already marked out for the site of the Eckley counting-house, engine-house, &c.; and I was present later in the day, when our worthy purser, Mr. Prockter, completed the bargain for the purchase of the new engine, just brought on the ground for erection at Wheal Sarah, where, unfortunately, operations are for the present terminated, which is greatly to be regretted, as they had just cut a superior lode of very rich silver-lead. This engine will be of great advantage to the proprietors of Eckley, as it will enable us to commence breaking our

ore much earlier than we should have done, had we to wait whilst one was being manufactured for us. Of our excellent agent, Capt. Dale, I had previously obtained much information relating to the prospects of Wheal Eckley, and his opinion that "no other lead sett that he knows presents such promising indications at the depth attained," appeared to me, from all I heard and saw on the spot, to be fully corroborated. Being thus gratified, we proceed to Wheal Prockter; and here, too, I must congratulate my fellow-adventurers on the great prospect of success. The sett is extensive, and the lodes numerous enough to make three good mines. The continuity of Wheal Sarah, and the undoubted value of the lodes which pass directly into Wheal Prockter, place all doubt of approximate success out of the question, in addition to which we possess valuable lodes of antimony, of which parcels were on the floors getting ready for market. On the highest elevation, and sloping a little to the southwest, is an object of intense interest to the archaeologist. It is a Roman encampment, fortified by two concentric circles of fosse and mound, enclosing ground enough to accommodate 20,000 men or more; and, *mirabile dictu*, I was informed by persons living on the spot, that there is a subterranean way entering far down the declivity, which conducts to the centre of the enclosure, and that there are still visible ruins 6 in. deep worn in the rock, forming the floor of the passage, by (it is conjectured) the wheels used in bringing heavy burdens for the use of the Roman cohorts. This would well repay any antiquarian to visit the spot, even if he came from John o' Groats, for the mere purpose of beholding this extraordinary relic of remote antiquity. Standing on the broken mound, I could not refrain from taking a mental retrospect of past events. Through the long vista of 18 centuries, what changes presented themselves to the view! As this encampment must ever possess a great attraction for the curious, I think I may congratulate the proprietor on its being included in the set, as whoever comes to visit it will not fail to experience a strong desire to participate in the riches with which Wheal Prockter appears to abound and will, therefore, most probably become a shareholder.

Wrapt into thoughts of ages long gone by,

The Muse beholds with retrospective eye,

The Roman Legions, here awhile secure,—

Prepare to battle still, or still endure;—

On all the hills around behold their foes,

The noble Britons crowding to oppose

Their country's direful conquest and disgrace,

And, firm in valour, meet them face to face,

The battle join'd, what fearful scenes ensue;

Who now can say, who run and who pursue?

Enough to know the Romans rul'd the land,

Meetings of Mining Companies.

CAWSON HILL MINING COMPANY.

The quarterly meeting of this association was held at the offices, 3, Crown-court, Threadneedle-street, on Thursday.

Sir JAMES ANDERSON, Bart., in the chair.

Mr. MATTHEW JOHNSTON (the secretary) read the notice convening the meeting and minutes of the last, which had been unanimously adopted and duly confirmed. The financial statement showed—Dr.: to shares issued, £490; Cr.: expenses to last general meeting, 117*l*, 15*s*, 4*d*; available funds, 74*l*; deposits yet payable, 367*l*, 15*s*; shares in agent's hands, 54*s*; salaries from Nov. 1852 to March, 1853, 31*l*, 8*s*; office rent, 2*l*; postage, &c., 7*l*, 7*s*, 4*d*; office expenses, 10*l*, 10*s*, 4*d*; cash rent to mine, 100*l*, 1*s*, 2*d*; stationery, printing, &c., 30*l*, 4*s*; commission to agents, 12*l*, 4*s*; theodolite, 10*l*; leaving balance in hand, 4*l*, 2*s*, 10*d*;—making, with the available fund and deposits yet payable, over 400*l*, to the credit of the company.

Captain Moyle's report was read, which is as follows:—

Since the last general meeting of shareholders we have opened on the back of a very large lode, about 16 feet wide at the surface. This is on the south part of our sett, just the other side of the stream, that comes from the hill divides the parishes of South Tawton and Throwley. To test this lode at a greater depth, we went back about 40 fms., and taking up a cross-cut adit level, drove it on to cut this large lode, and in doing so, cut another about 3 feet wide, having a very promising appearance for making tin at a shallow depth. We have also cut the large lode at the adit level about 5 fms. from the surface, where it is 18 ft. wide; its component parts are, beautiful gossan, with a little oxide of tin, black oxide of copper and quartz, peach, and prian, which are never-failing indications of making rich deposits of mineral in depth. We are now driving west upon one part of this lode, and it would be desirable to drive this end under the Hill with as little delay as possible, as it rises very fast. By driving this level on the course of the lode about 100 fms., we shall be about 50 fms. from the surface. There is no doubt, when this level is driven to the above-named extent and depth, that it will prove productive both for tin and copper. A few fathoms to the north of this lode we have opened on the back of another large one, about 12 ft. wide, of a very kindly appearance for copper, having a very fine gossan on its back. It is desirable to drive this cross-cut level to cut this lode, which I should say, would be done in about 10 fms., at the rate of about 30*s*. per fm. We have also taken up a deep cross-cut adit level on the north part of our sett, and driven it south about 50 fms., through a beautiful decomposed granite; and have also sunk a shaft on the back of this adit level. In driving this cross-cut level we have cut through five very promising lodes, one about 6 feet wide; this we cut just where our adit is taken back at the mouth of the lode. This lode produced some copper greens when we cut through it, and the water is still coppery that is coming from it. When we have extended this level about 200 fms. south we shall be about 14 fms. from the surface. So extending this level, we shall cut through upwards of 20 lodes, running east and west, which we can see at the surface; some of them we have opened upon, and have not many more fathoms to drive before we cut an east and west lode, and a counter one just upon the junction of both. On this counter we broke some good spots of copper ore in a shaft that we sink a little depth on its course. This adit should be driven for three months more before the erection of machinery, for then we shall be able to judge where the most desirable position is for our shaft, and which lode will give the best appearance to sink on. Amongst so great a number of lodes we cannot at present correctly judge of the best place to sink our engine-shaft, until they are more fully developed. At present the centre appears the most promising spot where we could cross-cut all our lodes, north and south, and sink our shaft 20 fms. under the adit level. This cross-cut adit level will answer two purposes—viz., to cut our east and west lodes, and drain the water; also, to place our water-wheel between our adit level and the surface, as we have an abundant supply of water-power, sufficient to reach a water-engine 60 feet high. Some experiments have been tried upon the china-clay, and promise a very profitable result. To wash this, and stream it for us, we can erect a little water-wheel, and a small machine, very cheaply, and having such an abundant supply of water, a small portion of tin will pay part of our working expenses, tin now being at a higher price.

The report was adopted and confirmed. Several specimens of tin were shown, proving the value of the lode.

Captain Moyle ably replied to all the questions propounded by the several shareholders, and after an expression of confidence in the general management of the mine, the meeting separated.

HOLMBUSH MINING COMPANY.

The annual general meeting of shareholders in this company was held on the 30th of March.

THOMAS HACKETT, Esq., in the chair.

The notice convening the meeting was read. Minutes of the last annual general meeting, and also of the special general meeting held the 15th of September last, were read and confirmed.

The directors' report, and the statement of accounts for the past year, having been read, it was resolved unanimously, that they be received and adopted. Captain Reid's report was then read.

Holmbush Mine, March 28.—We beg to hand you the seventh annual report of the above mine, and if not so encouraging as we would wish, still we are somewhat pleased at the progress made in developing the mine, and the return; therefore, we purpose, in the 1st place, to report on the Holmbush, or main lode; 2d, on the Flap Jack lode; 3d, on the lead lode; 4th, on the perpendicular shaft and cross-cuts, their respective depths, lengths, &c., the number of fathoms yet to be explored to reach the lodes, and depth for lift, agreeably to calculation, &c.; 5th, a few concluding remarks on the state of the machinery, number of persons employed, and the ground that has been explored during 12 months. The lode in the diagonal shaft is 20 in. wide, composed of beautiful spar, mundic, and stones of rich copper ore, opening into cross lodes, 6 in. wide, and is 12*l*, 3*s*, 4*d* in. below the 145 fm. level. If convenient, we purpose driving a 10 fm. level from the shaft, to unwater the 145, and at the same time to sink, to be prepared to cross-cut towards the down-right shaft, which will be some fathoms deeper; also, by carrying out this plan, the ore ground can be made available in a much shorter time. The lode in the 145 fm. level, east of the said shaft, is small at present, but not without ore; it is in the midst of a light blue killa, or stratum, and we hope an improvement will take place shortly; the greater part of the level driven through a very good course of ore, and the backs wrought at low tribute; there is also a very productive lode in the bottom of the level. The 145 fm. level is extended so far west of the shaft, as to reach the great cross-course, and we have driven it to several feet; it is rather spare for getting through, the ground being hard and wet; we are pushing it on as fast as we possibly can, to unwater and communicate to the winze sinking below the 132, for ventilation and stowing; and no lode has been taken down since we commenced sinking; but the tribute pitch at the same level, 132, is yielding a fair quantity of rich yellow and peacock copper ore, as are all the pitches on this lode. The lode in the 132 fm. level, east of the diagonal shaft, is 6 in. wide, producing a small quantity of rich ore; this level was suspended for some time, and have extended a cross-cut south of the above-named branch, to the south part, as seen in the upper levels, 129 and 116; we have driven it several fathoms, but have only intersected a few strings, or small branches of spar, with spots of copper and mundic; we are driving by the side of a small cross-course; whether this has had any effect in dis-ordering it, or whether the two branches widen in depth, remains to be proved; however, we intend to drive it to get under the perpendicular of the south part, as seen in the 120, if not further. The Flap Jack lode, in the 130 fm. level, east of the great cross-course, is 2 ft. wide, producing 2 tons of low grade per fathom; the stratum by the side of it is soft, and congenial for mineral; and we hope ere long a much more productive lode will be the result in extending the level further east. The tribute pitch in this level is producing a fair quantity of copper ore, and of a better quality than usual, judging from the per cent of the ore last raised; the point where the 110 fm. level cross-cuts south of Hitchins' shaft will intersect the lode will be just under this pitch, and we shall be highly pleased should it cut through one so good. The lode in the 110 fm. level east is 5 ft. wide, producing 6 tons of ore per fathom. The pitches in the back and bottom of this level are turning out sufficient mineral for the tributaries to obtain good wages. We were obliged to remove the pair of men that were driving east from the bottom of the midway winze to a more important place, for the want of miners, who are scarce; the hole, where knocked off, is large, and composed of spar, mundic and pyrites, associated with small-grain copper ore; a great deal of it must be saved, even if it is low price, now the standard is high. The lode in the 110 fm. level, driving west of Wall's engine-shaft towards the last-named place, is of a very similar character, having not many fathoms between the two; when a communication is effected, we shall drive west of the winze, to meet and hole to the 110 east; when this is accomplished, a great deal of the stuff, which is very heavy indeed, and now drawn at Hitchins', will be trained back at Wall's shaft, which will relieve the former, and do harm to the capabilities of the latter steam-whim; independent of the crusher which the latter performed, it will also save a great deal in the carriage from the upper mine to the lower, the shaft being close to the crusher and floors. Little has been done on the lead lode, but driving the 132 fm. level south since the last meeting. We had every reason to expect a productive lode at this level, considering what was found in the 110 and the 129 fm. levels; especially in the latter, where those large numbers of lead were found; but we have been disappointed in our expectations thus far; for this level has been suspended for some time, and the level full of stuff; indeed, the lode has been found productive, we could scarce hope to have been able to draw away both lead and copper, until this 18-inch whim is partly relieved by the one at Wall's. This little machine is now drawing at the deepest level from surface 10*l*, 1*s*, about which more will be said in the latter part of the report; besides, other reasons may be adduced for stopping the end.

A vote of thanks was passed to the chairman, which terminated the business of the meeting.

WHEAL ANNA CONSOLS MINING COMPANY.

At a meeting of adventurers, held at the offices of the company, on the 26th March, JONES BROWN, Esq., in the chair,—the following report of the committee was read:

The committee, in handing their report to the shareholders, must first express their regret at the loss which the adventurers have sustained by the death of their lamented friend, the late manager. They now proceed to lay before the meeting the following report of the mine:—

Wheal Anna Consols, March 23.—Since the last report, the stamping machinery, connecting 12 heads of stamps to the engine, has been completed, and all the new machinery is in a most complete and efficient course of working; the small quantity of coals consumed is an abundant proof of this, and reflects the highest credit on the engineer. There were extensive excavations made by the former workers, which present a sufficient inducement to commence driving a cross-cut north from the engine-shaft to the 12 fm. level, to cut the lode; it is now in soft granite, very congenial for the production of tin; it is 6 ft. wide, and in general character highly promising. This lode must be driven upon to discover the tin which in all probability it contains; as it could not be expected that its intersection by a single level, only a few feet in width, would at once lay open its value.

The purchase of the eight sets of water stamps was made at a cost of 563*l*, 4*s*, 6*d*. The first sale of tin from them was on the 21st May, 1852; and the amount sold to the present time is 292*l*, 1*s*, 7*d*, the tributary part on which, with dues, &c., is 20*l*, 12*s*, 7*d*; thus leaving a clear profit of 89*l*, 9*s*, or about 15 per cent. on the outlay in 10 months' working: the resources for supplying these stamps is unlimited. As to the mine generally, we may say that our expectations as to success are unmarred, and we hope at the next general meeting to congratulate the shareholders on the profitable results of our present operations.

Balance from last account £ 753 10 5
Received for tin sold, from 22d July, 1852, when the last meeting was held 229 17 2

Total £ 983 7 7
Mine costs for nine months, for London management, and other petty expenses 914 15 11

Balance £ 68 11 8

From the foregoing statement, it will be seen that further funds are required for carrying on this promising adventure; and the committee would suggest the propriety of making a 5*s*. call, one half payable on or before the 15th of April next, and will set that all right to do its work to the next level, to say the least of it.

We have 79 men employed on tutwork, 43 on tribute, and 102 persons employed in the shape of pit and timber-men, tanners, engine-men, carpenters, and surface pare (total 224 men). The ground explored on tutwork, during 12 months, in rising, sinking, and driving, is 419 fms. 3*f*. 3*i*. Our next sampling will be, by computation, 350 tons of copper ore. In conclusion, allow me again to assure you that no part of ours shall be wanting in prosecuting this mine to the fullest extent at every outlay, efforts, and perseverance, you will be well rewarded in the end.

It was resolved unanimously, that Messrs. J. L. Heathorn and Robert Bradley be re-elected directors; that Mr. Charles Burds be re-elected an auditor; that the banks of this meeting be now given to the chairman and directors for their constant attendance to the interests of the company; that the thanks of this meeting be now presented to Captain Lean.

PEMBROKE AND EAST CRINNIS MINING COMPANY.

A bi-monthly general meeting of shareholders was held at the offices, Austinsfairs, on Thursday, the 31st March.—JOHN SMITH, Esq., in the chair.

MR. EDWARD KING (the secretary) read the notice convening the meeting, and also the minutes of the last, which were confirmed.

The following statement of accounts was then submitted:—

Balance at bankers	£ 761 4 7
Calls unpaid, since received	816 10 0
Call of 5 <i>s</i> . per share	2560 0 0
Amount of copper ore sold	1288 14 9 = £2526 9 4
January mine cost	1283 3 0
February ditto	1577 12 2
Jan. and Feb. merchant's bills	1506 2 11 = 4366 18 1
Balance in favour of mine	£1059 11 3
ASSETS—Balance as above	£1059 11 3
Cash to receive on account of Par Company	400 0 0
Sampled 166 tons in April, say	1000 0 = £2459 11 3
LIABILITIES—Merchants' bills	4213 5 1
Balance against the company	£1753 13 10

The SECRETARY then read the following report:—

*March 29.—At Pembroke, the Garden shaft, sinking under the 58 fm. level, the lode is 3 ft. wide, composed of ore, mundic, and quartz, and of a very promising appearance. In the 58 fm. level east the lode is 2 ft. wide, with fine stones of ore, and a large quantity of mundic. In the winze sinking under the 48 fm. level, the lode is 1 ft. in. wide, with good stones of ore. We have a large quantity of ground standing in the 70, 80, and 90 fm. level, at Penre's shaft, which we shall take away as tribute as soon as we have secured the shaft; we hope to complete this in about a fortnight. At East Crinnis, in the engine-shaft, sinking under the 112 fm. level, the lode is 8 feet wide, with good stones of ore, and is looking much better than it did in the level above. In the 112 fm. level driving west, on the middle lode, it is 1 ft. wide, and the lode we expect will intersect East Crinnis lode about 5 fms. from the present end. In the 12 fm. level west, on Phillips' shaft, the lode is small, and the ground rather hard. In the bottom of the 112 fm. level, we have sunk a winze about 3 feet deep on Job's lode, where we have a good lode, about 1 ft. wide, which will intersect Phillips' lode in a few feet further sinking, and I have no doubt will make a good course of ore, but the water is so powerful that it is almost impossible to sink deeper than we now are before we cut the lode at a lower level. In the 99 fm. level west, on Job's lode, the lode is 2 feet wide, ore throughout. At Gill's shaft, in the 99 fm. level east, on the lode south of the shaft, the lode is 18 in. wide, with beautiful stones of ore, and a very good appearance. In the 99 fm. level west, on the same lode, it is 2 feet wide, producing 15*l*. worth of ore per fm. At Smith's shaft, in the 99 fm. level east, the lode is 4*l*. 4*s*. wide, with good stones of ore, and the remainder is all mundic. In a rise in the back of this level, about 3 fms. from the present end, the lode is 3 ft. wide, the lode is 2 feet wide. In the 50 fm. level east we have met with a cross-course. At Reid's shaft, in the 70 fm. level west, of the western cross-cut, the lode is 2 feet wide, with a very promising appearance. I hope this week we shall have the shears, capstan, and bob fixed in their places at this shaft. We are clearing out the bob-pit at Carlyn's, and shall get the flat-rods to work as soon as possible. We have now 12 tribute pitches working, varying from 7*l*. to 1*s*. 4*d*. in 1*l*. On our next tribute setting we shall set some new pitches in the ground which we have opened this working, at a moderate tribute.—JOHN LYME.*

THE CHAIRMAN thought the shareholders would agree with him that the report of the captain was a capital one; every level had improved, and the further they proceeded the better it appeared to be. Mr. Reid, who had much experience in mining matters, had recently returned from the mine, and would inform them of the exact position in which he found matters, which, he believed, would fully bear out Captain Lyne's report.

MR. LOCKE enquired whether the merchants' bills were for this year, or whether a portion of last year was included?—the total amount was 571*l*. 8*s*. which appeared a large sum.

THE CHAIRMAN explained that a portion of the amount was for supplies last year, which were used with many companies to keep the merchants' bills two months behind, but their accounts contained every item up to the present day. He should be happy to answer any other questions that might be put to him.

It was then resolved unanimously that the accounts and report be received and adopted.

MR. REID said, having been called upon to explain the position of affairs at the mine, he should feel much pleasure in doing so to the best of his ability. (Cheers.) The captain had given them a very favourable report, and which, in his judgment, was perfectly correct. He considered the prospects most encouraging; they had sold since the last meeting 185 tons of ore, had sampled last week 166 tons, and had no doubt by May they would sample 300 to 350 tons more. He saw a great change in the works since his last visit to the mine. The dressing floors were increased, and the whole of the operations were progressing most satisfactorily. They had experienced some delay from the difficulty of obtaining labour, particularly masons and smiths, which had prevented them getting their second crusher to work. They were now raising more ore than they could bring to market; but arrangements had been made which would enable them to dispense with a considerable amount of labour, and save expense, by attaching water-power to some of the works. They had several objects in view: one was in the 60, to unite the Pembroke and East Crinnis, and cut the great Pembroke lode. They had passed underneath the farm, and expected daily to cut the lode. In the 70 and 90, driving towards Unity shaft, they had nearly got to the extreme east of the sett, and within 25 fms. of Unity shaft. In the East Crinnis engine-shaft, sinking below the 112, they had a large bargain set, which they hoped would be completed in six weeks. They had only been one month in that level, and had discovered four lodges; but it would be labour in vain to go on until they had sunk the engine-shaft down to the 122, which it was expected would be done in four months. At Reid's shaft they were getting up the flat-rods very quickly, as it was considered desirable to unwater this shaft as speedily as possible. Captains Barratt and Clymo having stated this was the only level they were working on a regular course of ore. At Carlyn's, they were removing a small portion of timber to clear the 112, where they had large expectations. At Pembroke, he believed they did not expect very great results, and yet 160 tons of ore had been laid open in the three levels, and we are now raising more than any other part of the mine. In the 99 fathom level, east of Smith's shaft, the lode was much improved, and upon the next setting-day would be set on tribute at 6*s*. in 1*l*, when no doubt, from their general prospects, others would be set on the same terms. He could certainly congratulate the shareholders upon the great improvement since the last meeting; they were at the present time raising double the quantity of ore, and were paying the whole of their fixed expenditure and labour cost, but not for additional works. They had 33 tribute pitches working, some by two and some by three men, numbering nearly 90 tribute at work. At Christmas he told them they were raising 50 tons per month; he was now happy to inform them they were raising from 15*l* to 18*l* tons per month, and had large quantities of ore waiting for the second crusher.

MR. MARCHETT asked, if they had quantities of ore not taken into account?—MR. REID: We have 100 tons ready for the crushers. In fact, we have 22,000*l*. to 23,000*l*. worth of property on the mine, which is not taken into account.

MR. BROWN considered their affairs were in a most flourishing condition.

MR. LE CLOUZ enquired, if the rate of wages demanded by smiths and masons had increased in Cornwall, in the same proportion as in London?—MR. REID said they could not get them at all; and he was afraid some of the mines would be greatly inconvenienced from the want of labour.

THE CHAIRMAN said, after the able explanation by Mr. Reid, he had little to say, but considered their prospects were most promising; and hoped by the next meeting to present to them much better accounts.

MR. LE CLOUZ said, the meeting was deeply indebted to Mr. Reid for his very able and efficient services in inspecting the mines. He had much pleasure in proposing a vote of thanks to that gentleman.—MR. WELSH seconded the resolution, which was carried unanimously.

MR. REID, in returning thanks, said he had taken up the Pembroke and East Crinnis Company—being satisfied it was a legitimate undertaking, and wanted nothing but watchful care and good management. He held a large stake in the concern; but he should be sorry to relinquish it at any price.

A vote of thanks was passed to the chairman, which terminated the business of the meeting.

kindly lode.—No. 2 shaft: The 17 fm. level is still driving west; the lode is 2½ ft. wide, intermixed with good stones of lead. In cross-cutting north in the 15, the blue vein has not yet been reached, but there is a fine lode in the end, 2 ft. wide, of killas and gossan, and which I think is likely to lead to something good.

PENZANCE CONSOLS.—Slater's shaft is now sunk 7½ fms. under the 30 fm. level; but the rapid increase of water has compelled us to stop till the flat rods from the engine can be got to work; the bad weather preventing the completion of the machinery at the bob-pit till to-day. We shall now get the bob to its place, and the flat rods, the shaftsmen having assisted in getting them round. The lode in the end at the 30 fm. level is 9 in. wide, with tin throughout, and an alteration in the ground for the better has taken place. The ground in the end at the 24 fm. level, east of the flat lode, is hard, and the lode not yet taken down. In the end at the old engine-shaft, on the spar lode, we have found a good branch of tin; but we have not yet driven the cross-cut far enough to explore on the branches. At the new shaft, north of the count-house, we have two lodes crossing each other, one running north-north-west, the other south-south-east, with tin in each, but as we are only 3 fms. from surface, we cannot expect much from it at present: it has a kindly appearance, however. The stopes over the 24 and 30 fm. levels are producing quantities of stuff, but that rising from the latter is superior to that from the former. I am glad to report a general improvement in the mine on the whole, which I trust may continue.

PERRAN UNITED.—We are happy to inform you that the improvements of the underground prospects of these mines are steadily and satisfactorily progressing. The new lode in the 30 fm. level is now producing 3 tons of ore per fathom; and the lode also that has been opened up at Luke's, being of an immense size, and containing ore throughout, is now yielding ore in great quantities. The tribute pitches are all looking exceedingly well, and since our last report more have been added to the number. At present, we calculate on being able to raise about 40 tons of ore per week; and when our mines are drained to bottom, nothing can prevent us, at the present price of copper, from making immense profits. We have at present 200 tons of ore raised, but for want of a crusher, or some other means of reducing it to the required size, with the wanted facility, we shall not be able to get round our sampling for another fortnight at least. The prospects throughout the mine never looked so well as at present; and we have pleasure in stating that the imaginary dark killas seen, or rather described, on the 1st of March last, is quite annihilated, and superseded by porphyritic courses and channels of beautiful white killas, richly impregnated with green oxide of copper, &c.

PERRAN WHEAL ALFRED.—Considering the depth of this mine, our prospects are very cheering indeed. The lode maintains its size, nearly 4 ft., and the declination is very regular. The shaft is now 6 fms. from the adit, or 12 fms. from ground; the lode is ore throughout, with beautiful friable quartz, and every other favourable indication of large deposits of ore at no great depth. Every effort is being made to facilitate the sinking; and in the 10 under the adit we shall cut a plat, and also cut into the next lode. We have had several visitors, merely to see an engine that was made and set to work in less time than any other.

PERRAN WHEAL JANE.—Considering the unfavourable weather we have had, we are progressing very well indeed with the work. All the principal parts of the engine are fixed; and on the 12th inst. it will be another monument of our punctuality.

PRIGNANT CONSOLS.—The progress in the mine is satisfactory. The lode in these has first shown blonde, and in sinking deeper we have carbonate of lime; and they almost invariably lead to deposits of lead ore. When we discover the body of lead ore in this lode, we may expect great returns from it, as its nature indicates it. For example—at Frongoch the ore ground is upwards of 120 fms. long; and I have seen these lodes produce ore for a width of 30 ft. between the walls, for the most part in such quantities as to leave large profits; in many places for a width of 9 or 10 ft. it yields nearly solid. I mention this to show you the character of the lode. Mr. Greaves says the lode in Prignant shaft is a strong one, which I interpret to mean not only large but favourable, or well crystallised. The adit is driving in hard ground; this is also an encouraging feature, as the rock abutting on ground is generally hardened by the action of forming or depositing the ore.

PRINCE ALBERT CONSOLS.—On Saturday we set the plunger to work; it works well, and now no impediment will arise as to sinking the shaft. We began to sink yesterday (March 31), and broke good stones of tin; but next week I shall be able to report more fully. The prospects east of the shaft are just as usual.

RALEIGH (Crown).—The engine-shaft, sinking by nine men, at 20 ft. per fm., is now down 2 fms. under the 35 fm. level; the lode is 3 feet wide, composed of quartz and pyrite, intermixed with mundie and copper ore. The 35 fm. level is extended west of the shaft 6 fms.—throughout which the lode has been from 3 to 5 ft. in width, containing pyrite, pyrrhotite, and quartz, with a layer of copper ore, yielding about 15 ton per fm.; this end is driving by six men at 10 ft. per fm. The lode in the 35 east is 5 ft. wide, of a promising nature, improving as it proceeds, composed of gossan, and good stones of copper ore; this level is driven east of shaft about 11 fms., not being driven by six men at 7 ft. per fathom; in this level a cross-cut has been driven south, and intersected the lode that dropped off below the 12 fm. level; its size is 3 ft. net, composed of capel and spar, impregnated with mundie. The 34 fm. level is driven east of the shaft 28 fms.; the lode in the end is 2 feet wide, of a very encouraging appearance, but at present unproductive. At Boquin, in the adit driving east the lode is 3 feet wide, 1 foot of which is producing good saving work for tin; this end is driving by four men, at 3 ft. per fm. On the whole, the mine is looking very encouraging, and it is our united opinion, when further developed, it will realise our most sanguine expectations.

RATLINGHOUPE.—We shall have completed opening the old shaft in the course of eight or nine days' time.

RITTON CASTLE.—We are going on satisfactorily with sinking the engine-shaft.

RIX HILL.—The 28 west continues poor, and as this is the only tutwork we have, by way of opening ground we purpose driving a cross-cut to the north lode, just opposite the tin ground on the south lode, with a hope that it may also be found productive. We also purpose to put down the tutwork and back the water to the 40; also in the eastern back, and drive the 40 end further east. This is all the prospective work we have for the present. The tribute pitches are looking just as usual. We will send you some account of the sampling next week.

RHEIDOL UNITED.—It is with much pleasure we inform you of our having inserted the Nantglas lode, which is worth fully 20/- per furlong. It will be very suitable for Capt. Matthew Francis to pay us a visit as soon as possible, to lay out our plans for dressing, &c.

SITHNEY WHEAL BULLER.—I am now getting some air pipes to go into the eastern end, on the south lode; the indications are first-rate. I hope the whin will be ready to-morrow, and the stamps the week after. I hope by Saturday to have the bottom of the shaft cleared up. There is only 5 ft. of water now in the 40 fm. level, in the course of a few days I shall put a great number of hands to break tin ores, which will supply the whin drawing, and keep the stamps continually crushing, when in order.

SOUTON CONSOLS.—Having at the desire of several of the shareholders carefully inspected this sett and the workings thereof, with a view to submit my report to the adventure, I beg to state as follows:—1. The back of the lode, as seen in the mine pits and shafts, presents the most promising appearance for copper ore that I have for a very long time seen, being in effect a similar large and kindly gossan to the back of the Devon Great Consols lode, as first discovered in Wheal Maria. 2. The lode also is a regular one, from 9 ft. wide, and upwards, running about east and west, underlying north about 3 ft. in a fm., with good walls analogous to and parallel with the Great Wheal Friendship main lode, and in a congenial killas stratum, bordering on the granite formation about a mile to the eastward, and from which, some copper ore has been taken in an adit west.—3. A deal of useful work is done besides 18 fathoms sunk in the engine-shaft, which is calculated to take the lode at 25 fm. deep; a good water-wheel, and other appliances of sufficient power to drain the mine to a considerable depth, can be had. I would recommend the sinking this shaft to the depth proposed, and to drive east and west in that level, and possibly an intermediate one also. In conclusion, I strenuously advise that this kindly undertaking be immediately resumed, and the trials I have stated made, the more especially as so much has been done, the which, without a further prosecution, can only be regarded as money thrown away. I, therefore, hope shortly to see operations actively carried out, which there can be no doubt but that the appearances fully warrant, and I should like to have a few shares in the adventure.—JEW HITCHINS.

S.B.—The recommendations herein contained have been carried out, with the exception of employing steam-power instead of water. A 36-inch cylinder has been erected, and will go to work next week.—T. FULLER.

SOUTH CRENWYR.—We forked the mine to bottom on the 22d inst., and find the 94 fathom level driven only 4 fms. each way; they did not stop even to cut a plat. The lode in the eastern end is 1 ft. wide, with spots of ore; west, it is 9 in., and very similar in character; we have upwards of 30 tons of copper ore broken, waiting for the new steam-whine to go to work and bring it to surface. In the 12 fm. level, the lode is 20 in. wide, composed of gossan, mundie, and beautiful copper ore, saving work. The lode in the 64 is 1 ft. wide, impregnated with ore, ground impaving. The lode in the 74 fathom level is 2 feet wide, very promising. The lode in the 94 fathom level will be set to drive on Friday; in the last working the lode in another level was very ore, as it met the cross-course on the western side, consequently we had no right to expect it to be otherwise on the eastern side. A few fathoms west of the cross-course there was abundance of copper ore, and our ends of the cross-course are assuming a similar appearance, and becoming more mineralised as we get closer to it. We have a great length of ground to the east that has never been worked, where there can be no question that it contains a great abundance of ore. We have some good stones of ore from the Golden Arrow lode in the adit level. The whole of the tribute ground is looking remarkably well, and we have not a tributary on the mine who is not earning good wages, and working with spirit and vigour. Another pitch has been set in the back of the 54, at 12s. tribute.

SOUTH TAMAR CONSOLS.—In the 136 fathom level the lode is 3 ft. wide, worth 1 cwt., of ore per fathom, and looking more kindly than for some time past. In the 124 fm. level, the lode is 4½ ft. wide, and worth 14 cwt. of ore per fm.; this driving for some time past has been laying open very profitably ground. In the 112 fm. level south the lode is 5 ft. wide, and worth 8 cwt. of ore per fm.; in the 100 fm. level south the lode is 8 ft. wide, and worth 10 cwt. of ore per fm.; in a rise just commenced from the back of this level the lode is 5½ ft. wide, and worth 9 cwt. of ore per fm. The 90 fm. level south is still idle; but we shall set it as soon as we can get a fitting party of men. The 80 fm. south is progressing favourably; but is still in sandy and unsettled ground. In the south end in the 70 fm. level the lode is 3 ft. wide, composed of capel, with about 10 cwt. of rich ore per fm.; in driving north towards the shaft, in this level, the lode is 2 ft. wide, and worth 9 cwt.; and in driving south from the shaft it is 2½ ft. wide, and worth 6 cwt. of ore per fathom. In the 60 fm. level south the lode in the end is 4½ ft. wide, composed of capel, worth 12 cwt. of ore per fm., and likely to become more productive as we proceed; in the stopes in the back of this level the lode is yielding fully 42 cwt. of ore per fm. In the 45 fm. level south the lode is 3 ft. wide, and worth 15 cwt. of rich ore per fm., and is still improving. The 30 end is suspended for the present; in the stopes in the back of this level the lode is yielding 9 cwt. of ore per fm. The 53 fm. level north is driving back towards Smith's shaft in whole ground, and by the side of the lode, which has not been taken down during the past month. In the 45 fm. level, north of Smith's shaft, we are rising to the 36 for ventilation. We expect to hole and also reach Munday's shaft this month. The stopes throughout the mine are all looking well; and in all probability we shall have 90 tons of ore to sample on the 12th instant, although the holidays have caused considerable interruption. We are making every preparation for the erection of the new engine-house, and shall commence as soon as the weather will permit.

ST. AUVEST CONSOLS.—Next week we shall have a whin on Grout's engine-shaft, and this month (April) shall have nearly completed this shaft ready for our engine. The water in Dowson's engine-shaft still prevents our sinking at present. At the shallow adit, on Hawkins's land, we have cleared up the open cutting, and shall commence clearing the adit next week. In the deep adit east, at Hoppe's, the ground is rather of a closer character than when last reported. I hope to hole to let the water down at Grout's mine in about 10 or 12 days. We shall then have an extensive run of levels on the course of all our principal lodes, when we may break both tin and copper ores at once; the back is as last reported. The weather has been so severe during the last week that our masons have been prevented doing anything to our engine house. All our other work is going on satisfactorily.

SWANPOOL.—This has been our setting day, and we have set the shaft to sink below the 50, deep enough to put in staves and bearings, and to secure the shaft, for 35 fms. We have also set to drive the 50 fm. level, east and west, at 17. 5s. per fm.; we have got into the lode in this level about 18 ft., and not through as yet. The lode is composed of lead, mundie, jack, tin, intermixed with killas, and arsenical mundie. The 40 fm. level west we have set to drive at 2L. 5s. per fm. The lode in this end is 3 ft. wide, composed of flookan and tin. In next report, I shall be able to tell you more about the lode in the 50 fm. level; and I hope you will with all speed send us the steam whine and crusher, that we may try what we can do with the lead ore; for I am confident it will pay better than any tin mine in the county. Annexed is a statement of the lead ore shipped from Swanpool Mine for the Tamar Smelting Company.

Tons. cwt. qrs. lbs.
No. 1, 36 bags, weighing 3 14 2 3 at £14 1 6 = £51 19 0
No. 2, 27 " " 2 3 0 0 ... 9 1 6 = 19 9 0
No. 3, 20 " " 1 18 2 21 ... 11 11 6 = 22 2 0
No. 4, 3 " " 0 5 3 12 ... 7 5 5 = 2 1 0

[The water weight is deducted, and the ton calculated at 21 cwt.] £55 11 0

TREBELL CONSOLS.—In the tin department we are stopping the large lode, and at the same time stamping the tinstuff raised in sinking the shaft, and shall soon have a parcel of tin ready for the market. The stuff we are now stamping came from the north part of the lode, and is not near so good as what we are now raising on the south part. We have not yet reached the south wall; but in cutting south we have a great improvement—in fact, have some of the finest stones of tin I ever saw. The lode, a little to the west of our present workings, was greatly disordered by a slide, which seems to have thrown it further to the south. In cutting to the south to prove the same, we have met with the improvement named above. Our prospects are most cheering; for, independent of the large and promising copper lode in the killas, close to the granite at the foot of the hill, we have every prospect of Trebell becoming a profitable and a lasting mine.

MARCH 29.—Our lode in the tin department continues to improve. We hope as the mine deepens it will still improve; but if it continues as at present, we hope to be able to pay cost, and think the time is not far distant when we shall be able by the returns of tin to exceed the cost, and remunerate the shareholders for their trial and perseverance.

TREHANE.—The lode in the 112 fm. level cross-cut is now cut through—it is full 3 ft. wide, and worth about 14/- per fm.; the underlyer from the 100 to this place is only about 3 in. per fm., which is a very good indication. In the 100, north end, the lode is worth 28/- per fm.; the south end is worth 20/- per fm.; the stopes in the back of this level are turning out just as usual, worth 25/- per fm. The stopes in the back of the 88 are worth 9/- per fm.

TRELAWNY.—At Trelawny shaft, in the 130 fm. level, north end, the lode is 2½ ft. wide, poor at present; in the south end the lode is 2½ ft. wide, worth 8/- per fm. In the 107, north end, the lode is 3 ft. wide, worth 7/- per fm., in the south end it is 3 ft. wide, worth 9/- per fm. In the 92, north end, the lode is 2½ ft. wide, worth 8/- per fm., in the south end it is 3 ft. wide, worth 12/- per fm. At the north mine, we shall, by the end of this week, finish all the preparatory work, and by the beginning of another week shall commence the sinking of Smith's shaft under the 88; the cross-cut at this level is extended 3 fms. 5 ft.—the ground is hard and wet, from which we are near the lode. In the 78, north end, the lode is 2½ ft. wide, worth 4/- per fm.; on the east lode the end is coming in about 2 fms. deeper than the end of the vagr reported of late; in the west lode is 3 ft. wide, worth 16/- per fm. In the 55 cross-cut east the ground has become much harder, and we expect we are near the lode. The stopes and pitches are turning out much as usual.

TRELEIGH CONSOLS.—In the 100, east of Christoe's shaft, the lode is 3 ft. wide, in branches, and disordered. The 100 is being driven north of Christoe's shaft, to cut the north part of the lode.

TRELOWTH.—We are making preparations for sinking below the 67 fm. level as rapidly as possible. The lode in the 67 east and west looks like being upon the back of a bunch of copper ore, and we hope to commence sinking about the first week in next month.

UNION (tin).—We continue driving west by the side of the lode; next week we intend cutting into the. The four men stopping the back of the level are raising sufficient stuff for the stamps, therefore it will be useless to put on more men until we have more stamping power. I am glad to say the engine has arrived, and we shall lose no time in getting it to work, which will be done very soon after we have the necessary work from the foundry. We shall sell a good part of tin Friday, the 8th of April.

WEST ALLT-Y-CRIB.—We are driving a short cross-course to the west, when we reach the 20 fm. level.

WEST BALLY-CRIB.—We are driving a short cross-course to the west, when we reach the 20 fm. level.

WEST DING-DONG.—The lode in the 10, north-east on Richard's lode, is 18 in. wide, worth for tin full 20/- per fm.; the lode in the stopes in the back of the 10, on Richard's lode, is 15 in. wide, worth for tin 15/- per fathom. The lode in the flat-shaft, which we have commenced sinking this last week, is 3 feet wide, worth for tin 25/- per fm.; all other parts of the mine are just as last reported. We have commenced to open a few bob-pits to connect our flat-rods from Einstreven to our engine; we have also four men employed in sinking a new shaft to put in a new lift to convey our waste water over the wheel again, which will afford us a full supply of water for our stamp in the summer, as well as the winter. I feel pretty satisfied that West Ding-Dong will shortly be amongst the dividend-paying mines.

WEST GOGINAN.—The lode in the 45 fm. level, east of the engine-shaft, is 5 ft. wide, composed of clay-slate, mundie, and at times small branches of lead ore. The present end west is in a lode 6 ft. wide, and although but little ore is to be seen, it has a very promising appearance. The men are engaged drawing out the water at the whin-shaft, and I hope shortly to resume its sinking.

WESTON.—We continue making good progress in driving on the course of the Ryde lode in Cross's level without any alteration in the character of the lode. No. 3 shaft we are taking down. There is no alteration in the Village trial since my last.

WEST WHEAL ALFRED.—The lode in the 55 east and west continues about 8 feet wide, and will yield about 2 tons per fm., each end. The lode in the 45 west is hard, and we hope shortly to hole the winze sunk below the 37 fm. level. The 37, east of Goddard's shaft, is driving on the north side of the lode, yielding good stones of copper ore. The ground in Cole's engine-shaft is much harder, having sink only 9 feet the past fortnight. The pitches being wrought continue to yield a fair quantity of copper ore.

WEST WHEAL BULLER.—Since commencing work here, we have cleared the level several fathoms, and sunk Manuel's shaft to adit 10 fms. Our men are at present timbering the shaft, to make it secure, with all speed. The contract for doing the same will, I think, be completed in about eight or nine days from this time. When we have completed the shaft to the adit, we shall begin sinking below immediately, and as you have made a contract for the engine and stamps, I think we had better soon commence building a house for the same.

WEST WHEAL FANNY.—The lode in the adit level, south of trial shaft, has improved very kindly. At the 15 east there is a complication of lodes and branches, and Wheal Tyman's lode is supposed to be still to the south of the level. The lode in the 15 east has formed a junction 5 fms. above the level, and is producing good work for tin. The 25 and 15, west of Vyvyan's shaft, are producing tin. Taylor's lode in the 25, west of Kit's shaft, has been disordered by a slide, but in the present end is forming a large strong lode, with spots of copper ore. Next week about 25 tons of copper ore and 6 or 7 tons of tin will be sampled. Next month the sampling of tin will be larger.

WEST WHEAL LOVELL.—The adit end has been driven 50 fms. north, through congenital granite for tin, 30 fms. of which have been arched over with stone. In the last 20 fms. we have cut some branches containing tin. We have now about 30 fms. without meeting with the other part of the lead lode, which appears to be hove, and to prove which I have set the men to drive east, and hope soon to be able to prove it, when I will immediately let you know.

WEST WHEAL LOVELL.—The adit end has been driven 50 fms. north, through the 100, north of the shaft, is 3 ft. wide, worth 7/- per fm.; in the same level south it is 2 feet wide, worth 6/- per fm. The lode in the 90, north of the shaft, is 2½ ft. wide, worth 30/- per fm.; in the same level south it is 2 feet wide, worth 5/- per fm. In a winze sinking under this level, south of the shaft, it is 3 ft. wide, worth 9/- per fm.; on the western part, in the same level, the lode in the north end is 1½ foot wide, worth 5/- per fm.; in the same level south it is disordered by a slide. The lode in the 80 north is 2 ft. wide, worth 8/- per fm.; in the same level south it is 2 ft. wide, worth 7/- per fm.; in a winze sinking under this level it is 1½ foot wide, producing good stones of ore. The lode in the 70 south is 2 feet wide, worth 6/- per fm. The stopes and pitches throughout the mine are usually productive. On the 18th March we sold a parel of lead ore, computed 61 tons, to the Tamar Smelting Company, at 28/- 4s. 6d. per ton.

WEST WHEAL MARY ANN.—Poldark's shaft is sunk 2½ fms. under the 100. The lode in the 100, north of the shaft, is 3 ft. wide, worth 7/- per fm.; in the same level south it is 2 feet wide, worth 6/- per fm. The lode in the 90, north of the shaft, is 2½ ft. wide, worth 30/- per fm.; in the same level south it is 2 feet wide, worth 5/- per fm. In a winze sinking under this level, south of the shaft, it is 3 ft. wide, worth 9/- per fm.; on the western part, in the same level, the lode in the north end is 1½ foot wide, worth 5/- per fm.; in the same level south it is disordered by a slide. The lode in the 80 north is 2 ft. wide, worth 8/- per fm.; in the same level south it is 2 ft. wide, worth 7/- per fm.; in a winze sinking under this level it is 1½ foot wide, producing good stones of ore. The lode in the 70 south is 2 feet wide, worth 6/- per fm. The stopes and pitches throughout the mine are usually productive. On the 18th March we sold a parel of lead ore, computed 61 tons, to the Tamar Smelting Company, at 28/- 4s. 6d. per ton.

WEST WHEAL MAY.—The appearance of the lode in the 30 fathom level is without any change since last reported on. The ground is favourable for driving.

WEST WHEAL MESSER (

WOOD MINE.—We have engaged horses and men for the necessary work. The water is forked on the White Rock shaft; and we shall set the work at an early day next week.

WHEAL SIDNEY (PLYMPTON).—The mine still progresses most favourably in every part, with a great improvement going downward. In Hooper's and Mudge's stope, west of Derrick shaft (say, the middle lode), the ground is still very favourable for sinking the engine-shaft. The stamps are in full work, and the new dressing-floors now complete. In another week we hope to finish clearing the adit level east, to enable us to sink a winze to the back of the 23 fm. level.

WHEAL SURPRISE.—We have cut the south wall of the middle or wheel-pit lode, north of the engine-shaft, in the 23 fm. level after boring through the capel 3 ft. 3 in. into the lode, but we are not through it; there is a thin shale of ground on the wall of the lode, but we shall soon prove its size and properties, and will advise you immediately. I will commence sinking the engine-shaft under the 23 fm. level as soon as I can get qualified men, as we can drive west towards the junction of the lodes at the same time.

WHEAL TREVELYAN.—The 28 west, on Sampson's lode, is very much improved, and the 28 east is looking better for some time past. In the 33, east of engine-shaft, on Hawke's lode, the tin lode is 12 in. wide, with good saving work. We have holed the winze sinking from the 28 to this level, and hope soon to open Bay Flower lode. Nothing new in the cross-cut north of Hare's shaft.

WHEAL VICTORIA.—The shaftmen have sunk 3 ft., making altogether 33 fms. 1 ft. 4 in. below the adit.

WHEAL WHITELIGHT.—The engine-shaft is secured to the bottom of the 50, plat completed; the men engaged in the work deserve great credit for the workmanship displayed. We have commenced to clear the levels, and hope within a month to be in a regular course of raising rich silver-lead ore. Mr. West has sent to the mine some of the castings for the crusher, stamps, &c., which are about ready to receive, and which, no doubt, will much facilitate the dressing operations, and effect a saving in the expenditure.

WHEAL WILLIAMS.—At the north engine-shaft the men are still engaged in their former bargains, and will continue to do so until the pitwork is completed to the 30. The work is progressing well, and will be finished in about 10 days from this date (March 29th).

WHEAL ZION.—Up to this morning (March 31) our men have not been able to get into the great lode, owing to the hardness of the capel on the south wall. It will require three or four days longer to enable us to speak of the character of the lode. No doubt, by the meeting (April 7) we shall have got half through it; at present we cannot add to the report of last week any important fact, but from present appearances in the cross-cut end, we expect a very favourable result.

FOREIGN MINES.

ROYAL SANTIAGO MINES.—[Received March 26.]

Cobre, Feb. 23.—Since my letter of the 16th inst., we have been principally occupied at the mine in fixing the pitwork in Thompson's shaft. We shall continue to work the sinking left at Taylor's shaft in the same way as at present, until the bobs and rods are fixed in the 32 cross-cut. We have opened about 4 ft. east and west in the 42 at Taylor's, on the north side of the lode, which is the most productive part. The south part, although oreay, is very foul and muddy, and as taking it down would involve a good deal of timber work, I consider it best to let it stand for the present. The lode west of the shaft will yield 4 tons of ore per fm. The east end, which looked best when we commenced, has been crossed by a head of country, which has reduced the ore part to 2 ft. wide, and the yield to 3 tons per fm. The rise in the back of the 35 has improved. We are stopping 5 fms. in length, and it appears likely to continue for some fathoms more in height; most of the ore broken has come from this place. The quantity, I am sorry to say, will be less than I led you to expect; I fear it will not exceed 50 tons. The lode stuff throughout is coarser in quality than formerly; it contains so much mud that the dust is scarcely worth anything, and the stone ore is very little indeed. The bottom of Taylor's shaft, however, is looking well; we shall resume sinking as soon as the pitwork is completed. The 35 fm. level end east is poor, and just now is unpromising. In the adit end west the ground is changing for the better; we are expecting daily to cut the north lode.

LINARES MINES.—Received from Mr. Henry Thomas:—

Pozo Ancho, March 19.—In sinking the engine-shaft under the 65 there is nothing new to notice; the lode in the 65, east of San Anton, is worth, east of the cross-cut, 3½ tons in a fm., and west, 3 tons. San Jorge winze, sinking under the 55, in advance of the 65 east, is worth 3 tons in a fm. The cross-cut in the 65, driving north of the engine-shaft, is in a large sparly lode, but at present without lead. The 55, driving west of La Casuadida's winze, is worth 2½ tons in a fm.; the stopes in this level, between San Anton and Las Nieves, are worth, respectively, 3 tons and 3½ tons in a fm. The 55, driving east of La Fortuna, is unproductive. Fernández's winze, sinking before this end, under the 45, is worth 2½ tons in a fm. The 45, driving east of La Esperanza winze, is worth 1 ton in a fm. La Suerte winze, sinking before this end, under the 31, is worth 1 ton in a fm. The cross-cut driving north at this level, from La Esperanza, is in a large lode, chiefly of calcareous spar, with stones and small branches of lead ore. The 45, west of La Casuadida, is poor. Gomez's winze, sinking under this level, and in advance of the 55 west, contains spots of lead ore, not to value. West of San Juan shaft, in the 31, driving west of cross-cut, the lode is worth ½ ton in a fm. The cross-cut is without change. On the north lode, in the 31, driving west of La Esperanza cross-cut, the men have communicated with a level driven on what has been reported a caunter lode, consequently this north lode falls into our main level. West of La Esperanza, at the point where we commenced the western cross-cut, this cross-cut has intersected nothing of importance. We have put the men to sink a winze on the north lode, west of La Esperanza cross-cut, which will be reported as Garcia's winze. The 31, driving east of La Esperanza cross-cut, on the north lode, is worth 2½ tons in a fm. In the eastern cross-cut we have put the men to drive west on the first branch intersected, the most productive of the several we have cross-cut, and this is now worth 2 tons in a fm. The 31, driving east of Thorne's shaft, is worth 2½ tons in a fm. Thorne's shaft, sinking under the 31, is worth 2½ tons in a fm. Field's shaft is worth 2 tons in a fm. At Taylor's, which is between Thorne's and Field's, we are still clearing in old workings. Between San Juan and Warne's, where we are also sinking, the lode is large, chiefly composed of capel, without lead. At Warne's, the shaft is worth 1½ ton of lead ore in a fm., and the 20, driving west of this shaft, is still in a large lode, with spots of lead ore, but not to value. The tribute pitches are yielding a fair quantity of ore.

THE IRON TRADE OF SOUTH STAFFORDSHIRE.

[FROM OUR CORRESPONDENT AT BIRMINGHAM.]

MARCH 31.—The main feature of the week, in connection with the trade of this district, is the important preliminary meeting of the iron and coal masters of South Staffordshire and Shropshire, which took place to-day, at the Swan Hotel, Wolverhampton, and the result of which has been looked forward to with more than ordinary interest. During the last half-year, bar-iron was quoted at 11½ per ton, and all other iron in proportion; although it was pretty generally believed, that where large contracts had been entered into before the rise an abatement was made, and hence considerable dissatisfaction was not unreasonably felt by that numerous class of men known as the "small manufacturers," that they should be required to pay the full price decided upon by the masters at their quarterly meeting. To-day the interest of that class was prominently brought before the trade, and with a favourable result. The meeting was exceedingly numerous; indeed, it was by far the largest preliminary meeting which has assembled, perhaps, for years past. There was scarcely a house of importance in the district unrepresented; and amongst those present were, Mr. Routh, of the British Iron Company, Mr. Hartley represented Messrs. Thorneycroft, Messrs. Williams and Co., William Mathews, Esq., Mr. Barrows, Mr. Freer, Mr. Sparrow, &c. At three o'clock, Michael Grazebrook, Esq., chairman of the body, took his seat, and the question of price was brought before the meeting by a leading ironmaster, who urged the necessity of reducing the price of bar-iron from 11½ to 10½, and all other descriptions of iron in proportion. A long discussion ensued, in which the high price of labour, as compared with that of last year, the great advance on coal, and rise in the price of almost every article used in mining operations, were urged as reasons for a continuance of the rates of last quarter. On the other hand, the difficulties with which the "small manufacturers" have had to contend, in consequence of the high prices, were put forward in support of the proposed reduction; and it was eventually decided, that, with a view to meet the wishes of the consumers, the price of bars should be reduced to 10½ per ton, and other sorts of iron in proportion. It might have been as well if a higher figure than that adopted to-day had not been quoted six months ago. Such an unusual, unexpected advance led to exorbitant demands on the part of the men, which of necessity were complied with. Coal and all other material rose in proportion, and the ironmasters found themselves at the head of a list of prices injurious to their customers, but from which they could not recede without serious injury to themselves. The men once in possession of high wages could not easily have been induced to abandon their good fortune; and if any reduction had been proposed, strike and suspension of labour would have inevitably ensued, to the injury of all parties. Relative to the copper and metal market, there is little to report. There is an evident determination on the part of the smelters to retain the advantage recently gained, and the manufacturers are no less resolved upon not making for stock. In this state of things, the sales are limited, with a fair supply in the market. The general trade of Birmingham is brisk, and foreign orders are still rapidly arriving.

The Great Britain steamer, it appears by a letter received at Bristol, passed St. Helena on the 28th of February; and, consequently, up to that time made as good a passage as the Caledonia. Her non-arrival may, therefore, be ascribed to her fuel having probably run short.

The Caloric Ship Ericsson had arrived at New York from her experimental trip to Alexandria, &c. Her engine worked throughout the passage with perfect regularity, and the vessel proved herself in every respect seaworthy. The Ericsson left Alexandria on Friday night. She carried at no time more than 3½ lbs. pressure to the square inch, which is about 3½ lbs. less than she is capable of carrying.

A RARE FISH.—At a meeting of the Belfast Natural History and Philosophical Society, the president exhibited a fish taken in Belfast Lough, called the Leptocephalus Morrisii. It is so very transparent that it is difficult to detect it in the seawater, when living; its eyes only are the most conspicuous parts, being opaque, and very beautiful. It is about 5 inches in length, and when preserved in spirits, its opacity is increased, so as to be then distinguishable.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET, London, April 1, 1853.

ENGLISH IRON.	per Ton.	ENGLISH COPPER.	per Ton.
Bar and bolt	£39 10 0	Tile, 14 to 28 lbs. a... p. ton	135 0 0
In Wales	8 10 0	Tough cake a... p. lb.	135 0 0
In Liverpool	—	Sheathing and bolts a... p. lb.	0 1 3
In Staffordshire	—	Sheet a... p. lb.	0 1 3
Sheets, single a... double a...	— 10 0 0 — 10 0 0	Bottoms a... p. lb.	0 1 1
Hoop a...	— 11 0 0	Old a... p. lb.	0 1 1
Rod, round	— 11 0 0	Yellow Metal a... p. lb.	0 1 1½
Nails, round, square a...	— 11 0 0	Wetterstedt's Pat. Met. & cwt. p. cwt.	1 16 — 1 15
Rails (Wales) b...	— 18 15 0	ENGLISH LEAD. a...	
(Staffordshire) b...	— 10 0 0	Pig p. ton	21 10 0 — 25 6 0
Railway Chairs, Clyde b...	— 5 0 0	Sheet p. ton	— 25 10 0 — 26 10 0
Pig, No. 1, Clyde b...	— 2 12 0	FOREIGN LEAD. a...	
3-5ths No. 1 & 2-5ths No. 3	— 2 15 0	Spanish, in bond p. ton	—
No. 1, in Wales c...	— 4 0 0	ENGLISH TIN. a...	
Scotch Pig No. 1 in London	— 3 13 0	Block p. cwt.	— 5 0 0
Coal-blaze, No. 1 Foundry	— 6 10 0	Ingots	— 6 2 0
Charcoal bars	— 11 10 0	Bar	— 6 2 0 — 8 3 0
Stirling's Patent Glasg.	— 3 12 6	Refined	— 6 2 0
Toughened Pigs	Ditto	Grain	— 8 9 0
Wales	4 0 6 — 4 5 0	Fine grain	— 7 0 0
FOREIGN IRON. a...		Ditto bars	— 7 2 0
Swedish	11 0 0 — 12 0 0	Ditto granulated	— 7 4 0
Russian CCND	— 17 0 0	FOREIGN STEEL. a...	
English Charcoal Pigs	— 6 0 0	Bands p. cwt.	6 0 0
In London	—	Strata (uncertified) p. cwt.	5 15 0
FOREIGN STEEL. a...		TIN-PLATES. b...	
Swedish kug, nominal	— 20 0 0	IC Charcoal p. box	— 1 15 0
Ditto faggot	—	IX Ditto	— 2 1 0
SPELTER. c...		IC Coke	— 1 7 0
On the spot	p. ton	IX Ditto	— 1 13 0
To arrive	— 22 5 0	Canada plates a... ton	—
ZINC.		645,000	
In sheets d...	p. ton	QUICKSILVER. f... p. lb.	— 0 2 4
Terms.—a, 2½ per cent. dis.; b, nett; c, 3 ditto; d, 1½ per cent. dis.; e, 2 ditto; f, 1½ ditto; deliv. in Liverpool 10s. per ton less.—Discount 5 per cent.		Stocks	
■■■■■ THE SCOTCH PRO-IRON MARKET is improving; 54s. 6d. per ton cash has been paid, and sellers are now firm at 55s. cash.			
Other descriptions of iron remain firm, with prices unaltered.			
SPELTER has been rather easier; there are no sales to report; sellers at 22s.			
COPPER.—The smelters continue well supplied with orders, without any alteration in price.			
LEAD continues very quiet.			
TIN has been rather flat.			
TIN-PLATES.—Most of the makers are very full of orders; there is no alteration in prices.			

GLASGOW, MARCH 31.—At the opening of the year considerable purchases, chiefly on speculation, were made of Pig-iron, at 73s. 6d., 75s., 74s., and 75s. 6d. per ton, cash, and 1s. 6d. to 2s. 6d. per ton extra for three and four months' open delivery.

Shortly after the publication of the annual circulars, showing an extension in the production, and an increase in stock of 100,000 tons, an anxiety on the part of holders to realise was manifested. A panic, heightened by the raising of the rate of interest by the Bank of England, ensued, and the prices rapidly receded from 75s. to 50s. per ton on the 21st Jan. last. Immediately thereafter the market somewhat rallied, and the price was again forced up to 65s.; but this quotation was scarcely maintained a day, and since the end of January prices have gradually declined to 52s. 6d., with an occasional variation from 1s. 6d. to 2s. 6d. per ton.

One hundred and nineteen furnaces are now in blast, and the computed

make since 1st Jan. till now is Tons 185,000

The stock on the 1st Jan. was 450,000

645,000

Exported foreign and coastwise Tons 105,000

Consumed in local foundries and malleable iron-works 65,000=170,000

Stock in warehouse-keepers and makers' stores this date Tons 475,000

It will be observed the stock has increased since the beginning of the year 25,000 tons, notwithstanding augmented shipments and a large home consumption. The further increase of wages demanded by the colliers and miners has been acceded to by the masters.

Owing to the scarcity of tonnage, and a rise of fully 30 per cent. on freights the execution of heavy orders for England, the continent, and America, is retarded.

Bar-iron has declined about 15s. per ton, but is firm at the following quotations:— 35s. 15s. to 10s.; Bails, 9s. 10s. to 9s. 15s.; Plates, 12s. 5s. to 12s. 17s. 6d.; Rods, 9s. 15s. to 10s. 6d.; Pig-iron, g.m.b., 5s. 6d. to 5s. 8d.; No. 1 Garterherrie, 5s. 6d., to 5s. 6d., nett cash.

MINES.—The market, owing in a great measure to the Easter holidays, and the absence of any large buying orders, has been very quiet this week, and prices have slightly given way. The standard going down has also given an uneasy feeling towards some of the heavy shares, which, owing to the high price of copper, have had an extraordinary rise. Bullers are offered, without, however, finding ready buyers; Bassets rather enquired for; South Tolgoe firm, at 250s.; West Caradon declined to 310s. 320s.; South Caradon, 235s. to 240s.; West Treasures have risen to 14s., and are in good request; South Frances, 190s.; Merlin, 4s. 10s. to 4s. 15s.; Garreg, 14s. 11s. to 12s. 6d.; Marke Valley, 5s.; the shares in Metcalfe Mine (Jamaica), to which we referred last week, have advanced to 14s. prem., 1s. paid; Uny, 15s. to 16s., and good business doing; Keswick, 10s. to 15s. In calling attention to this mine, in the Journal of the 12th of March, we named, as one important point likely to come off, the fact that at Brandley a shaft was sinking to cut the lode 40 fms. deep, under a rich course of ore; and we are glad to hear, information has been received this week, that the lode has been cut, worth 25s. per fathom. South Tamar shares are 7s. 15s. to 8s.; Pen-y-Gelli, 28s. to 30s.; East Gunnis Lake, 2s. 5s. to 2s. 7s. 6d.; Tremayne, 27s.; West Providence, 5s. 6s. Alfred Consols remain at 18s. 10s., although the reports from the mine are excellent; and we question if the mines were ever in a better position. The other Alfreds are flat. Trebarwith looks like "coming out," and the shares have been in request. Balnoon is very flat at 10s.; Herodsfoot, 19s. to 20s.; Welsh Robins, 4s. 10s. to 5s.; North Towy, 17s. 6d. to 17s.; West Ding Dong, 13s. 10s. to 14s.; Trelawny, 6s. 2d.; West Providence, 5s. 6s. ex div. of 2s. 10s. per share, declared at the quarterly meeting just held; the same dividend is promised for the next quarter. The South Caradon dividend is 4s. per share for the two months. Wicklow Copper Mining Company's shares have advanced to 74s., being a rise of cent. per cent. within a short time; Tincroft, 1s. 10s. to 12s.; Tamar, 4s. to 4s. 5s.

The following dividends have been declared during March:—

Mines.	Per share.	Amount.
Devon Great Consols	£12 0 0	£12,288 0 0
Devon Buller	25 0 0	6,400 0 0
Par Consols	0 15 0	4,800 0 0
Linaries	0 10 0	4,500 0 0
Alfred Consols	0 13 0	3,328 0 0
West Wheal Providence	2 10 0	2,560 0 0
Carre Brook	2 0 0	

From the Britannia Mine, we learn the 50-feet wheel has arrived at Barnstaple, and will be immediately fixed, when active operations will be resumed, in sinking to the 20 fm. level.

At the Merlin Mine, in the 26 fm. level, west of the old shaft, the north and south lode has been intersected and driven on north about 2 fathoms. This lode is upwards of 6 feet wide, composed of lead carbonate, or zinc, &c., saving work—altogether a fine-looking lode, and very easy for driving. In about 3 feet further north, they expect the east and west lode will be again intersected, and where an improvement may be expected, from the appearance of the lode in the level above. Should the north and south lode continue as promising as at present, they will also continue this level north. The lode in the 16 fm. level west is about 3 ft. wide, producing saving work; this end is also very easy for driving. The angle-bob has at length been got in its place, and they hope soon to resume sinking the engine-shaft. There is nothing to notice in any other part of the mine.

At the Pen-y-Gell Mine, they are getting on much faster in sinking, but there is yet no appearance of the east or west lode coming in the shaft. The lode in the 10 fm. level east is about 4 ft. wide, producing some fine lead. The lode in the 10 fm. level west has been intersected by a slide, which has been cut through, but there is no appearance of a lode to the west; this end is suspended for the present. A rise has been commenced in the back of this level; the lode in rise is about 2 feet wide, with lead-saving work. The adit end west has been suspended for the present; the lode in the end is about 2 ft. wide, with a little lead. A winze has been commenced in the bottom of this level; the lode in winze is about 4 feet wide, with a little lead, but not to save. They are compelled to put a winze through at these levels for ventilation.

At Devon Kapunda, the engine-shaft is progressing rapidly below the 22 fm. level, in a good channel of light blue killas. The lode in the 14 fm. level east has greatly improved, and is producing stones of lead, muriatic, and prian, presenting a more promising appearance than has been seen since the driving was commenced eastward.

The directors of the Royal Hibernian Mining Company are extending their operations—having just secured, on advantageous terms, letters of license over what is believed to be most valuable copper and lead mining property, in the counties of Galway and Wexford; and their mining engineers going over, with as little delay as possible, for the purpose of fully developing these extensive districts. We learn that the works in the county of Kerry are being carried on vigorously; a competent judge writing from these mines this week, says "I feel great pleasure in being able to inform you that the Clogher Mine is far exceeding all expectations: I have been down in the shaft, and never saw such rich ore as appeared in the east lode, very much impregnated with silver."

The Irish Consols Mining Company have had specimens of their ore assayed by Mr. Knight, of Foster-lane, and one parcel was found to contain 26.96 per cent. of copper, whilst another gave one-third of manganese and two-thirds of iron. These specimens were taken from the surface by Mr. Charles Wyatt Orford. During the week we have inspected some portions of ore taken out of the Spanish Cove Mine, now working, and which, from appearances, seem to contain a per centage of copper equal to that assayed by Mr. Knight. Mr. Orford has made a very neat model of the company's property, which may be seen at the offices, and with various plans clearly show the intended operations. The course of the lodes are dotted on the model, the main lode runs the entire length of the sett from Spanish Cove, which will be the centre of the works, and is well adapted for that purpose, as vessels can come up to the company's property, and the ore be shipped without the intervention of boats. There are two places on the surface for reservoirs, from which a fall of 45 ft. can be obtained and made available for machinery, thus avoiding the expense of steam-power. The Government road cuts through the property, so that only a small outlay will be required in forming roads to and from the various works. It is intended to enclose the whole of the main works, and have an efficient resident engineer, and from the high respectability and well-known working qualifications of the directors, there is little doubt the Irish Consols Mining Company will prove a profitable speculation.

During the week we have seen some specimens of copper ore, which have been produced from the Crafnant Copper Consols Mines, in the county of Merioneth, North Wales. These specimens are of more than average quality, some of them being upwards of 30 per cent. of copper; while, from what we have seen, we should judge the lowest of them was not less than 10 per cent. The large specimen to be seen at the office, which weighs over 3 cwt., is remarkable, not only on account of its per centage, but likewise its extraordinary size.

The shares in the Dinas Great Copper Mine have been done at 17. premium. Mr. Lelean, and the engineers, are now in Wales, getting the necessary plans and estimates for the crushers required at the mine.

All the shares in Wheal Eckley have been taken up.

Wheal James is selling out two cargoes of ore weekly; the other prospects of the mine are so much improved, that next week a 10 per cent. dividend will be advertised.

Capt. John Frank, of the Freidd Llywod Mines, near Llanwrst, has been appointed to superintend the Blaen Caylen and Bronfoddy Mines.

The Pennant and Craigwen Mines (which were advertised for sale, by auction, on Wednesday next, under the Joint-Stock Companies' Wind-up Act) have been disposed of by private contract. Mr. Harding, of Basinghill-street, the official manager, having received an offer from Mr. Metzler, of Great Marlborough-street, it was submitted to Master Tinney, who has accepted Mr. Metzler as purchaser for the sum of 400*l*. We understand that a party of the former adventurers have agreed to join and continue the mining operations—the lord of the manor having agreed to grant a new lease upon favourable terms. The company will be conducted strictly upon the Cost-book System, for w^tch purpose a new code of rules no regulations are being prepared.

During the week shares have changed hands in Alfred Consols, Ballswidden, Black Craig, Condurrow, Devon Great Consols, East Wheal Rose, Great Poldroth, Par Consols, South Cardigan, South Wheal Frances, Sparrow Consols, Tamar Consols, Treborth, West Providence, Wheal Brewer, Wheal Golden, Wheal Mary Ann, Wheal Prokter, Wheal Tremayne, Ashford Consols, Bronydd Consols, East Seton and Wheal Maudie, East Tamar, Hawkmoor, North Buller, Pembroke and East Crinnis, Penhale Consols, Priddy Wood, South Crever, Tavy Consols, East Wheal Russell, Gwanton United, South Alfred Consols, Wheal Catherine, Wrysian, Nova Scotia Copper, Lake Superior Copper, &c.

In Foreign Mines, transactions have taken place in Cobre, Copiapo, English and Australian Copper, Liberty, Linares, Mexican and South American, New Granada, Grand Duchy of Baden, Port Hunter and Moreton Bay, Colgate, Metcalfe Company of Jamaica, Mount Carbon Worthing, Feather River, Monarch, Ceylon Land and Mining, Brazilian Diamond and Gold, Garnet and Moseley, L'Aigle d'Or, Nova Scotia Copper, Lake Superior Copper, &c.

At the Metcalfe Mining Company of Jamaica meeting, on Thursday (T. M. Weguelin, Esq., Deputy-Governor of the Bank of England, in the chair), Mr. Aspenwall put several important questions to the chairman with reference to the working of the mines, and from the answers he received, and the reports which he had read, expressed his conviction that the company were possessed of a very valuable property, and that it must shortly hold a high position in the market.

The Scottish Australian Investment Company's special general meeting was held on the 23d March, C. Chalmers, Esq., in the chair, for the purpose of sanctioning and adopting certain alterations recommended in the report by the directors to a former meeting. A satisfactory communication, under date 18th Dec., had been received from Mr. Morehead, the manager of the company in Australia. A meeting of the London shareholders having taken place, disapproving of the proposed reduction of shares in qualification of directors, that portion of the report was omitted, and the other resolutions were carried unanimously. The proposed alterations are—The dispensing with residence in Aberdeen on the part of directors; the taking power to hold meetings of the company in London; to appoint committees of directors, or of shareholders, holding largely of the company's stock, either in Aberdeen, London, or Australia, to assist generally or specially in the management of the company's affairs; to establish agencies, and also branch establishments, in the Australian colonies, &c.

The Linares Lead Mining Company have advices to the 19th of March. The lode in the 65, east of Sun Anton, is worth, east of the cross-cut, 3*cwt*s tons in a fm.; and west, 3 tons. San Jorge winze is worth 3 tons in a fm. The 45, driving west of La Casuadidad winze, was worth 2*cwt*s tons in a fm. The 45, driving east of La Esperanza winze, was worth 1 ton in a fm. They had put the men to sink a winze on the north lode, west of La Esperanza, which would be reported at Garcia's winze. The tribute pitchers were yielding a fair quantity of ore.

The Royal Santiago Mining Association have advices to the 23rd Feb. They had opened about 4 ft. east and west in the 42, at Taylor's, on the north side of the lode, which was the most productive part; the lode west of the shaft would yield 4 tons of ore per fm. The rise in the back of the 35 east has improved; the lode stuff throughout was coarser in quality than formerly, but the bottom of Taylor's shaft was looking well, and they intended to resume sinking as soon as the pitwork was finished.

The Chalanches Silver Mining Company have received a letter from Mr. White, of which the following is an extract:—"I have the satisfaction to report a fact which throws everything else into the shade. The opinion I had formed and expressed with so much confidence to the directors promises to be fully realised. From recent discoveries it is proved that the mineral deposits are not by any means confined to the elevation of the existing galleries of Chalanches. When here on the occasion of my inspection, I recommended trials to be made several hundred feet below. These have been made, and copper, silver-lead, antimony, and oxide of silver have been obtained. There is a large quantity of ore ready for smelting, rich in silver." Hence, in spite of the snow, by which operations have been somewhat retarded, it would appear that the real value of the mine has been proved; it being established, in confirmation of the opinions expressed by many eminent geologists and practical miners, that the valuable ores are not confined to the surface workings, but extend to the underlying strata, which have never yet been explored.

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The Nouveau Monde Company have received letters from their superintendent, Mr. Clement, dated Mount Ophir, California, Feb. 8. He announces the arrival of the engineer and party sent from England, and states that they were actively employed in the repairs of the machinery and erection of reduction works. By repairing some of the existing mills, he hopes to obtain results until the more perfect machinery is established. The quartz already ground was from all kinds of stuff lying about the premises, and gave good results on vanning, or washing in a bowl. Mr. Clement refers to the reports of the mines and reduction works, and remarks that he is happy to see that all goes well, and will enable him to give that satisfaction he so much desires of making some show of returns. It appears from the mining report that the No. 1 level, in the Pine Tree sett, had been driven a total length of 240 feet at the end of January, and that the same quantity of gold, or even a better show, had been found on vanning; the stuff broken throughout. Another branch of a lode had been discovered, nearly parallel with those in hand, which shows gold in larger specks, and generally thought to be richer in quality, as the vannings plainly show. In Mount Ophir sett the level had been driven 53*ft*. in the month, and the lode left standing contains gold to full 3 cents per lb., having improved in appearance, but has not been taken down, as the object is to reach the main lode. The men are all in good health, and behaving well, and there seems to be no scarcity of hands.

Mr. Clement hopes soon to give the result of his first grinding of gold quartz. The Yuba River Company have received a letter from their mining agent (Capt. Watson), dated Ouseley's Bar, February 13th, in which he states that Wright's machine had been successfully at work for three days; that it had washed 20 cubic yards of earth per day; and that by the next mail (1st March) he should remit the results of a fortnight's washing. He further says—"On the whole of the bars in this country, the richest deposits have been found on the Bedrock, where, at the depth of 30 ft., the yield was from 25 to 50 cents, to a single pan of earth." A small blacksmith's shop and carpenter's shed, and a dwelling house for the agents, had been erected. Wages were falling with the reduced price of provisions. Everything was in readiness to go to work on a large scale. During the floods, the agents had landed and stacked about 1000 loads of timber, which had floated down the river.

This was an important acquisition. Capt. Watson concludes—"My opinion is not altered in the slightest degree as regards the value of the property; in fact, I may say no person can put a limit to its value."

The market for the gold mining shares has been very quiet. There has been, however, more disposition to invest in the favourable descriptions, and, consequently, prices have rather shown a stiffening tendency. The enquiries have been chiefly for Nouveau Monde, Colonial Gold, Yuba River, British Australian, and Australian Cordillera. Speculative sellers of Port Philip have also been buying back, and realising profits. Our arrivals of gold this week have been, the *Lochnagar* with 3324 ozs. of gold, of the value of 12,896*l*; the *Meteor* with 44,704 ozs., worth 178,000*l*.—making a total of 190,396*l*. Up to the middle of February, upwards of \$3,750,000 had been shipped from San Francisco to New York and the United States from the mines of California. The Peel River Company, we understand, are about actively to develop the valuable property belonging to them. Port Philip shares have improved, in consequence of the announcement that the directors were not empowered to make a call unless with the consent of two-thirds of the shareholders. The descriptions that would appear to be least in demand have been—Quartz Rock, Australian Freehold, Australian Mutual, West Mariposa, and Australian Consols. The transactions on the Stock Exchange will be found in the usual place. The non-official quotations are—Monarch, $\frac{1}{2}$ dis. to $\frac{1}{2}$ prem.; Australian Consols, par to $\frac{1}{2}$ prem.; Chartered Australian, $\frac{1}{2}$ to $\frac{1}{2}$ per share; Burn's Creek Gold, $\frac{1}{2}$ to $\frac{1}{2}$ dis.; Peel River, $\frac{1}{2}$ to $\frac{1}{2}$ premium; Adelaide Land and Gold, $\frac{1}{2}$ to $\frac{1}{2}$ dis.; Lewis Hill Range, $\frac{1}{2}$ to $\frac{1}{2}$ dis.; Melbourne Gold, $\frac{1}{2}$ to $\frac{1}{2}$ per share; Golden Mountain, $\frac{1}{2}$ to $\frac{1}{2}$ dis.; British and Colonial Smelting and Reduction Company, $\frac{1}{2}$ to $\frac{1}{2}$ prem.; Brazilian Diamond and Gold, par to $\frac{1}{2}$ prem.; New South Wales Gold, $\frac{1}{2}$ to $\frac{1}{2}$ prem.; Brazilian Diamond and Gold, par to $\frac{1}{2}$ prem.; London and Liverpool Australian Gold Mining and Steaming Company, 1-16th to 3-16th prem.; Bruce Gold, $\frac{1}{2}$ prem.; Rio Claro Brazilian Gold, par.

The shares of the Mount Carbon Chartered Coal and Iron Company have, we understand, been anticipatively dealt in on the market.

Favourable advices have reached the L'Aigle d'Or Gold Mining and Land Company from America.

The Port Hunter and Moreton Bay Coal Company, Australia, are proceeding to allow to applicants.

The New South Wales Coal and Inter-Colonial Company have just concluded the purchase of a small steamer, for dispatch to Australia in a few days, and are in treaty for two other vessels, which are nearly ready, in order to enable the company to at once open up the inter-colonial trade.

The Irish Beet Sugar Company have made a call of 2*l*. 10*s*. per share, payable on or before the 21st inst. Interest will be charged at the rate of 5 per cent. upon all calls remaining unpaid, and if not paid within one month from that date, the shares will be liable to forfeiture.

The second instalment of the Netherlands Enclosure Company, amounting to 1*l*. per share, becomes payable on the 30th inst.

There is no change in the price of Australian Land shares, business being dull. South Australian Land is quoted at 53 to 54. British American Land are quoted at 62 to 64 ex div. The old Australian Bank shares were also unchanged in value; but of the new institutions, the Scottish Australian was sensibly lower. The Australia and China Bank shares were firm. Provincial Bank of Ireland shares have been done at 4*s*; East and West India Dockers, 16*s*; Victoria Docks, 6*s*; Crystal Palace, 5*s*; paid, 6*s*; 1*l*; General Steam Navigation Company, 3*s*; General Screw Steam Shipping, 11*s*; 1*l*; Peninsular and Oriental Steam, 8*s*; paid, 2*l*; Royal Mail Steam Telegraph, 1*l*; paid, 1*l*. Melbourne Dock and Railway shares are quoted today $\frac{1}{2}$ to 1*l* prem.; Berlin Water-Works, 1*l* to 1*l* prem.; Ebro Canal, 1*l* to 1*l* prem.; Royal Danish Railway, 2*s* to 2*l* prem.

In the Iron Companies, the Blaenavon have done business at 15, Rhymney at 24*s*, and Portland from par to $\frac{1}{2}$ prem.

DUBLIN, APRIL 1.—General Mining Company for Ireland, 6*s*; Mining Company of Ireland, for account, 22*s*; Mizzenhead Copper Mine, $\frac{1}{2}$ to $\frac{1}{2}$ ditto; Royal Hibernian Mining Company, for account, 1*l*; Wicklow Copper Mine, 7*s*; 7*s*; ditto for account, 7*s*; Aguia Fria (1*l*, paid) for account, 2*l*; Australian Freehold (1*l*, paid); 1*l*; Nouveau Monde (1*l*, paid) for account, 2*l*; Port Philip (1*l*, paid), 1*l*.

HULL, MARCH 31.—Our correspondents (Messrs. T. W. Flint and Co.) state that there has been decided improvement in the market for mining shares during the past week, many speculators having discovered that more good has been done in this department during the last few months than in railway shares. Trebarwith, East Tamar, West Treasury, and several others, have been enquired for, but there is very little mining stock offered here at market prices. Lelants have been in request, and Dolcoath would find buyers at a market price.

Transactions on the Stock Exchange.

Shares.	Paid	Last Prices.	Business Done.
100000 Agua Fria	1 <i>s</i>	1 <i>l</i> $\frac{1}{2}$ to 1 <i>l</i> $\frac{1}{2}$ pm.	2 <i>s</i> $\frac{1}{2}$ $\frac{1}{2}$
300000 Anglo-Australian Gold	1 <i>s</i>	par to $\frac{1}{2}$ pm.	1 <i>l</i> $\frac{1}{2}$
100000 Anglo-Californian	1 <i>s</i>	$\frac{1}{2}$ to $\frac{1}{2}$ pm.	1 <i>l</i>
100000 Australian	2 <i>s</i>	1 <i>s</i> to 1 <i>l</i> $\frac{1}{2}$ pm.	3
100000 Australian Cordillera	1 <i>s</i>	5 to 6	5 <i>s</i> $\frac{1}{2}$
100000 Australian Freehold	1 <i>s</i>	$\frac{1}{2}$ to $\frac{1}{2}$ pm.	1 <i>l</i>
50000 Ave Maria	1 <i>s</i>	$\frac{1}{2}$ dis.	1 <i>l</i>
72000 Baden, Grand Duchy of	1 <i>s</i>	par to $\frac{1}{2}$ pm.	1 <i>l</i>
26000 British Australian Gold	1 <i>s</i>	$\frac{1}{2}$ to $\frac{1}{2}$ pm.	1 <i>l</i>
26000 British Iron	13 <i>s</i> 5	7 to 9	1 <i>l</i>
21000 Carson Creek	9 <i>s</i>	par to $\frac{1}{2}$ pm.	5 <i>s</i> $\frac{1}{2}$
100000 Colonial Gold	1 <i>s</i>	2 <i>s</i> $\frac{1}{2}$ to 2 <i>s</i> $\frac{1}{2}$ pm.	3 <i>s</i> $\frac{1}{2}$
350000 Conner Miners of England	Stock	80 to 90	80 <i>s</i> $\frac{1}{2}$
9000 Ditto, Preference	25	8 to 9	pm.
70000 English and Australian Copper	5 <i>s</i>	1 <i>l</i> $\frac{1}{2}$ to 1 <i>l</i> $\frac{1}{2}$ dis.	5 <i>s</i> $\frac{1}{2}$
50000 London and Calif. Gold Quartz	1 <i>s</i>	1 <i>l</i> $\frac{1}{2}$ to 1 <i>l</i> $\frac{1}{2}$ dis.	5 <i>s</i> $\frac{1}{2}$
100000 Marquita	1 <i>s</i>	$\frac{1}{2}$ dis.	par
20000 Mexican and South American	9 <i>s</i>	8 <i>s</i> $\frac{1}{2}$ to 8 <i>s</i> $\frac{1}{2}$	8 <i>s</i> $\frac{1}{2}$
200000 New Granada	1 <i>s</i>	1 <i>l</i> $\frac{1}{2}$ to 1 <i>l</i> $\frac{1}{2}$ pm	

NOTICES TO CORRESPONDENTS.

THE COST-BOOK SYSTEM.—Sir : I am glad to perceive that an offer has been made of a premium for the best essay on the Cost-book System. If this subject is properly treated by the parties writing, as I doubt not it will be, much good will result. Care must, however, be taken that the arbitrators chosen form such a body that the various questions relating to the subject be duly represented. I would suggest—A barrister, having a knowledge of and experience in questions connected with mining ; a solicitor, having a practical knowledge of the working of the Cost-book System, as now generally adopted ; an experienced agent, having the management of mines ; a mining broker, and a mining captain. Arbitrators thus chosen will represent all interests. The candidates should bear in mind that an effort at composition is not required, but a sound practical view of the question is to be taken and discussed. If this is done, I have little hesitation in saying the result will go far to solve the problem of "What is the Cost-book System?"—C. H. : City, April 1.

J. E. (Knockmahan).—All the Irish ores sent into Wales for public sale are sold at the Swansea ticketings, at which the smelters' agents record their biddings in writing, according to previous assay, and the highest bidder is the purchaser. If two or more should offer the like amount, which repeatedly happens, the parcel is divided among them. According to the standard of last week, which experienced a considerable decline, ores of 13½ produce would bring 16½ ss. 6d. per ton : a mouth since they would have realised about 16½ ss. per ton.

The answer to "F. W." (Kirkcudbright) shall appear in our next Journal.

Shares in the Burra Burra Mining Company can be as legally purchased in this country as in South Australia. The only office of the company is in Adelaide ; but any London broker would undertake the transaction of business in them.

BOTTLE HILL MINE.—Sir : Permit me a small space in your valuable Journal to answer the questions of "A. J." (Bottle Hill), with regard to the impartial inspection of the above mine. It is at all times open for the inspection of any adventurer, or his agent, provided he be an accredited proxy. I should be glad to see any practical mine agent in the mine at any time, as I believe it will bear the inspection or strictest investigation of practical men, both underground and at the surface. Let the enquirer meet the manager at the meeting, to be held at St. Swithin's Lane, on Monday, the 4th April next, as I intend to be there, if spared and in health.—THOMAS DUNN : March 31.

GRANITE SILVER-LEAD MINE.—Sir : In the early part of last year a great deal was said in your Journal concerning this mine. Can any of your correspondents inform me how it has progressed since that period?—G. : Birmingham, March 28.

L. N. (Reford).—The particulars in the Share List respecting Alfred Consols is quite correct : the 6½ ss. represents the total amount paid on each share, while the 13½ is the last dividend declared. The same with Devon Great Consols. The Marquis share have 2½ ss. paid, and the Marquises 11 ; but we know nothing about contemplated dividends in either.

A Shareholder" in Silver Valley and Wheal Brothers would feel obliged by being informed if any thing is being done at the mines ; or if a meeting has been held, or any investigation of the company's affairs taken place?

"A Subscriber" (Banagher).—The number of share in the National Brazilian Mining Association is about 10,000, 30s. paid, making the capital nearly 300,000l. There were 12,000 shares issued, but only 10,000 taken up, which will account for the number of our correspondent's shares. "Jacutinga" is a species of sparkling iron sand, or decomposed iron-stone. "Stope" is a horizontal bed ; to stope, to excavate horizontally, layer after layer. "A Subscriber" should obtain our Glossary of English and Foreign Mining and Smelting Terms, where the information he seeks is given.

We intend, in reply to numerous correspondents, to give, next week, some further particulars concerning Mr. Baggs's patent improvements in extracting gold and silver from their ores.

"F. W. C." had better consult a broker : he will find no trouble in procuring the information he requires.

RAILWAY OBSTRUCTIONS.—A correspondent has a model, consisting of several pieces of machinery, which are so formed as to be placed within a very short space of time upon any line of rail, in the event of an obstruction occurring on the contiguous line. By the adoption of this plan, there is little doubt a vast amount of contiguous, which at present arises through accidents, would be prevented, inasmuch as a train coming upon one overturned would, by this process, be at once passed to the next line, and thus proceed on the original line. Any one desirous can ascertain particulars, by addressing a letter to the Editor, which will be forwarded to the inventor.

UNITED GEORGE COPPER MINE.—P. (Strand).—We are requested by Mr. Fish to inform our correspondent, and others interested, that a statement respecting the affairs of this company shall appear in our next Journal.

J. W. W. (Swansea).—The note has been forwarded to Dr. Watson.

"A Constant Reader" (Swansea) wishes to know what the Melbourne Gold Mining Company are doing, and what are their prospects? Also, if the United Life and Guarantee Insurance Company is in existence ; and if so, the price of their shares.

SALE OF BLACK TIN.—In last week's Journal there was an error in Wheal Enys statement of tin sale ; the price of the first parcel should have been 77. 5s., instead of 75. 3s. The total of 299. 6s. 2d. was correct.

PORT PHILIP GOLD MINING COMPANY.—Holders of this stock are advised to receive with great caution remarks of rival companies, adverse to its interests. Although in an incipient state, this company is the only one, either in Australia or Tasmania, now making monthly returns of gold from the diggings of their own men ; and, under existing circumstances, really good returns. The Government of Australia has recently passed laws by which the company will be secured the services of its working staff, under pain of fine and legal punishment. It has also passed laws enabling the company to lease, for specific periods, auriferous districts, which the genius of Evan Hopkins, no doubt, has selected, and which will now be secured for the benefit of this company. The configuration, so industriously adverted to, is not to the extent parties—jobbers—would wish to impress ; but only of that amount which can speedily be rectified by the energy and talent of those engaged. The machinery was prepared for the buildings, but was not in them at the period of the fire, consequently they will soon be in a position to make heavy returns, to pay for past outlay and reward those who trustfully reposed confidence in the active agents of the company.—Nil desperandum, in a respectable company.—E. G. : Slough, March 29.

SIR.—I beg to enquire what is the official position in the Port Philip Company of Mr. Bland—who, residing at Melbourne, undertakes to advise authoritatively on the proceedings, 100 miles distant, at the scene of operations? I know some shareholders in this company, who have invested in the belief that the whole of the business was under the unrestricted management of a superintendent, profoundly versed in the management of mines and miners. If Mr. Bland, or Mr. Sand, or any other nobody, is to interfere at pleasure, and frustrate plans laid with a full knowledge of existing difficulties, the case is entirely altered ; and, I must say, it is due to the misfortune quite bad enough in itself, but if it is to afford power to persons at a distance to interfere with experienced management, and act in the spirit of such *advice*, I can only say such a prospect is most damnable to the interests of the Port Philip Company.—DAVID MUNSHET : March 29.

Mining GLOSSARY.—For the convenience of new adventurers, and others requiring the information, we have prepared a Glossary of English and Foreign Mining and Smelting Terms : it is neatly printed in a useful form, and can be obtained through any bookseller, or at our office, price 2s.

THE COST-BOOK SYSTEM.—So much interest seems to be evinced for information respecting the Cost-book System, we have reprinted, as a pamphlet, the paper descriptive of its principles and practice, which appeared in the *Mining Journal*. Copies can be procured through any bookseller or newsman, or at our office, price 6d.

On Wednesday, the 23rd February, was published, price 2s. 6d.,

THE MINING GUIDE:

Containing the following particulars respecting each British and Foreign Mining Company :—

Name of mine Captain Committee Secretary Offices
Produce Where situate Purser
And the NAMES AND ADDRESSES OF MINING AGENTS AND DEALERS IN SHARES.

To which is added,

A COMPLETE SET OF AMENDED RULES FOR THE MANAGEMENT OF MINES ON THE COST-BOOK SYSTEM.

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THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, APRIL 2, 1853.

In our Journal of the 10th March we made some remarks on the price which copper had obtained. It may not be inappropriate here to notice how during the last two months tin has been affected. The prices of tin have advanced as follows—on 21st January, 5d. per ton ; on 14th February, 5d. per ton ; on the 23d of February, 5d. per ton : making the present price of blocks 117s., and refined 120s. per ton. It has been argued that this arises from the fact that stocks are accumulating in this country ; and in order to increase the demand, an artificial scarcity in the article has been caused by the producers. This we deny. The stock in London on the 1st of January, 1852, was 1401 tons ; in the same period of 1853, 1767 tons : showing an increase of 366 tons. The exports of tin-plates from Liverpool in 1851 were 505,000 boxes ; in 1852, 602,982 boxes : showing an increase of 97,982 boxes, equal to about 350 tons. It may be urged that this argument may be used against ourselves, having shown an increase in stock in the year 1853 over 1852 of 366 tons ; but this is

answered by the fact, that in the months of January and February, 1852, the export of tin-plates from Liverpool was 73,000l. ; while in the corresponding period of the present year it reached to 132,000l., approaching somewhat to nearly double the amount. From all accounts that have come to hand, it does not appear that any great supplies can be anticipated from Penang, Singapore, India, or China ; and if the money market should remain in a healthy state, the re-action feared by some alarmists will be very trivial, if any ; at all events, we will venture to predict that it will not exercise much influence on this branch of our industry. The present remunerative prices cannot fail in exercising not only a beneficial tendency on our manufactures, but likewise on our mines.

depôts are few, far between, and ill supplied on this track. And next, the American steamers require more facilities in procuring the material in sufficient quantity, and at a cheaper rate ; while lately in many districts, complaints are made, and justly made, that with all our mineral capabilities coals are now at so high a standard.

Surely the coal mining proprietary ought to be alive to all this, and in improving their system of exploration insure a greater supply from the same amount of labour. In the Prussian and Belgian mines, although in the latter country mining discipline in some points is rather lax, the advantages derived from the Government system, as at present enforced, are acknowledged ; and it is avowed that there is one-third increase in the present products of labour, as compared with those of the old mining *regime*.

The question now arises, whether our coal owners ought not to meet, assist the Government with their experience, and lay down rules for future and better management ? We suggest such a proceeding. Reform will, they may rest assured, be forced upon them ; and should there be anything unsatisfactory in the enactments which are now being framed, they will have only to blame themselves, if they are tardy in the work of improvement. Let them also remember, that there is a strong and spirited foreign competition to be contended with ; and we have only to quote a few passages from a report of Professor ANSTED, published in a pamphlet by the MOUNT CARBON CHARTERED COAL AND IRON COMPANY, in evidence of this truth. The learned professor, who lately proceeded to Virginia, U.S., to inspect the Mount Carbon property, states that, at a moderate computation, the quantity of gettable coal on their 10,000 acres may be estimated at 55,000 tons per acre, this amount of product being procurable above the water level ; and he remarks—"A very large and extended system of working may safely be ventured on in a case where the mineral property is so clearly developed and readily obtained as in that before us, and where the quantity of mineral in sight is so exceedingly large."

It must be remembered that this opinion may be said to apply generally to the district. The great Kanawha River, one of the principal tributaries of the Ohio, intersects the vast coal-field which lies in this state, Virginia, and serves as an easily available and economical exitory for its mineral produce, while the large mercantile marine at New Orleans, and other places on the Mississippi, are at hand to receive the coals and convey them to depôts which are now being formed by American enterprise on the track of our colonial steamers.

Here is a single instance of powerful competition ; other projects of similar worth are, no doubt, in embryo, for such is the spirit of the times : and, firmly believing that competition is the nerve of commerce, and that to the rapid strides which other countries have of late years made in commercial knowledge and manufactures does England owe, in a great measure, the spirit which has directed her genius so powerfully and so successfully, we hail every legitimate foreign enterprise with a friendly feeling. Regarding such fraternal antagonism as the most effective exertion of our own energies, we can afford to foster and encourage the industry of others ; and we may confidently trust to the indomitable power of our own.

The distressing account which we inserted in last week's *Mining Journal* of the explosion at the INCE HALL COMPANY'S ARLEY MINE, near Wigan, appears far from having been exaggerated : more than 40 dead bodies had been brought to surface by Saturday morning, and from the great extent of the workings to the north, 1400 yards, and from the vast quantities of roof that had fallen, blocking up the roadways, this portion had not been explored, but in which, it is feared, missing men will be found, swelling the catalogue of the dead to nearly 60, but whom it was expected could not be got at for some days. The power of the explosion may, to some extent, be judged of when we state that a quantity of the materials were carried up the shaft 415 yards and hurled high in the air, from whence they fell into the canal and on the surrounding surface. The report was heard to a considerable distance above ground, while below some of the survivors compare it only to the shutting of a distant door, and actually resumed their work, not dreaming anything serious had happened. The inquest was commenced on the afternoon of yesterday week, when an interesting and concise account of what he considered the origin of the catastrophe, and the means employed to recover the men, was given by MR. JAMES DARLINGTON, the managing partner of the firm. MR. DICKINSON, the Government Inspector, was present, and THOMAS JONES, the underlooker, attended, in custody. MR. DARLINGTON stated that he was about the centre of the works, one quarter of a mile distant, when the explosion occurred ; a few minutes after one o'clock on Wednesday, the 23d March, he perceived that the mine had fired, by the ventilation being for a few moments reversed, and smoke ascending the downcast shaft. The explosion had broken down the doors, blown the cage out of the wooden guide rods, and set them on fire. Several of the men also went down, and the first thing seen were fragments of the strong doors, mingled with the mangled remains of about fifteen colliers, so mixed up with pieces of blackened wood that it was difficult to recognise them. In the engine-house, at the bottom, three persons were found alive, and 20 more at a short distance in a state of great exhaustion ; they were given some cordial, recommended by medical men, to restore them. It took 18 hours to renew the doors and brattices, when 22 more dead bodies were discovered. There were about 50 men employed in the search, who divided themselves into four parties, and took the divisions east, west, north, and south. The explosion had occurred in the north district, where the ventilation was stopped, and it was then dangerous to examine it, but doubtless many bodies were under the fallen rubbish. The workmen used Locn's safety-lamps, and are not allowed to use candles or open lamps, except at the bottom of the shaft, where there was no danger. There was blasting in the mine, but only in districts considered safe, and then not until after an examination of the atmosphere. His opinion was that the accident occurred through the failure of a lamp, or the removal of a lamp top ; the men were very expert at picking the locks. In reply to MR. DICKINSON, MR. DARLINGTON stated that the pits were generally in good working order, but he had recently called MR. JONES's attention to the northern part, he having reported that small jets would light at the face of the coal, like a small illumination. In ten minutes after the accident, JONES told MR. DARLINGTON what he had done, when he was asked how he could do so without removing the men or informing MR. DARLINGTON ? His reply was, he thought there was no danger. He had been promoted from one of the other pits about a year and a half since, on account of his ever having been found a careful, industrious man. His opinion was that 150 to 160 men were in the pit on the morning of the explosion, and that 100 had been got out alive ; could not be certain, as the colliers' lamps had got mixed with those of the exploring party. Did not think the ventilation would be much interrupted by the cages, as when one ascends the other descends ; but if both got fixed it would be obstructed. In answer to MR. DICKINSON, it was further stated that the clear passage of air past the cages was 40 ft. area, and by the anemometer he had ascertained the return air to be 30,000 feet per minute, the natural ventilation of which was about 15,000 feet per minute. In summer he considered the temperature of the pit would be 100° Fahr., and if the external was about 60°, there would be a ventilating power of 40°. JONES was very attentive, and had been employed in pits where, as compared with the Arley, there were ten difficulties to one in the latter. He had never had reason to complain of him. JONES was in the room while MR. DARLINGTON gave his evidence, but asked no questions, and the enquiry was adjourned.

In addition to the 40 bodies recovered up to Saturday, one of the men then alive, named ROBERT AINSCOUGH, who appeared to be suffering from asphyxia, has since died, and nine more bodies have since been recovered from the workings, making the total ascertained number of 50 deaths. From an examination of the appearance of the workings, we are informed that MR. JAMES DARLINGTON, the manager, has formed an opinion that the explosion originated neither at the furnace beneath the up-east shaft, nor at the further portion of the No. 4, or north district, about 1400 yards from the shaft, but at a point nearly midway between those two, or about 800 yards from the furnace, where it was first thought the damp had been fired. From this he is led to conclude the explosion must have been caused by the carelessness of some of the colliers, in leaving open one of the air-doors immediately adjoining the seat of the explosion, so as to change the course of the ventilation, and allow the gas to accumulate ; otherwise it is believed that the immense ventilating power in the mine would have been sufficient to prevent such a disaster originating at that point. This accumulation of gas was probably set on fire by its being rapidly drawn over the lamps, or by a naked lamp having been exposed in its vicinity ; for, although the lamps are kept locked, some of the colliers, with more dexterity than prudence, contrive to open them, with a view to obtain a better light. The damage done to the pit is by no means so great as was at first supposed ; three of the four districts are in a state which would admit the men to resume work almost immediately, but it is

unlikely that the ordinary work will be re-commenced for several days. With the furnace put out, the natural ventilation of the mine has proved to be sufficient to prevent any dangerous accumulation of the gas, but still there are isolated portions of the workings by no means free from it; and it will probably be two or three days longer before the whole of the north district can be explored, the stench arising from which leads to the suspicion that several bodies are still concealed by the earth which has fallen from the roof of the workings.

A parliamentary return has been obtained, on the motion of Mr. BLACKETT, of the various sums which are annually paid as duty on coals brought into the City of London, together with the application of the proceeds therefrom. This statement shows that, since the year 1832, the nett produce of the 8d. per ton duty has gradually, with very slight variations, increased from 33,620*l.* 4*s.* 3*d.* to 113,559*l.* 3*s.* 3*d.*, which sum was raised during the year ending the 5th of January last. In the year 1832 the proceeds of this duty of 8d. per ton was carried to the credit of the Orphans' Fund. Since then, however, it would seem that the produce, together with wine duty, charges upon the corporate revenue, a duty upon admission to the freedom of London, a duty on binding apprentices, profits of aqueducts, and one moiety of the nett profits of Farringdon Market, are carried to the fund called the "London-bridge Approaches Fund," which fund is charged by Parliament with effecting street improvements in the metropolis. The net proceeds of the 4d. per ton duty, has increased from 35,722*l.* 9*s.* 1*d.* in 1832, to 57,591*l.* 10*s.* in 1852. This duty is the property of the Corporation of London, and is carried to the credit of the City's cash, subject to such applications as they may direct from time to time. The nett duty of 1d. per ton, in 1832, was 892*l.* 5*s.* 10*d.*, and it has been increased since that time to 14,297*l.* 17*s.* 6*d.* in 1852. Up to the year 1845, inclusive, this duty was applied to the maintenance of the markets for the sale of coals in the City, and in paying the pensions due to the land coal-meters deprived of their offices, and in generally carrying out the provisions of the Act. Since 1845, the duty, however, has been paid to her MAJESTY's Commissioners of Works, to be applied by them in effecting public improvements in the metropolis authorised by several Acts of Parliament. No sums were chargeable on the coal duties solely previous to the 1st and 2d WILLIAM IV., c. 72; but the sum of 1,320,600*l.*, raised for public services and improvements, is charged upon certain funds—to the credit of which the duty of 8d. per ton is carried. Since the passing of that Act, the sum of 968,000*l.*, making with the interest, which has not been paid out of the growing produce of the fund, 1,264,303*l.* 7*s.* 11*d.*, has been charged upon the produce of the coal duties. These charges were principally made for improving the site of the Royal Exchange, for New Oxford-street, &c., Victoria-street, Westminster, Farringdon-street, and other improvements in the metropolis generally. The surplus of the fund, of uncertain amount, is directed by the 13th and 14th VICTORIA, c. 103, to be applied to opening an improved line of communication between Coventry-street and Covent-garden. The duty of 1d. per ton was, by 8th and 9th VICTORIA, c. 101, made applicable to a fund for such improvements in the metropolis as Parliament should sanction. The sum of 1,049,302*l.* 7*s.* 11*d.*, including 296,302*l.* 7*s.* 11*d.* interest, were payable on the 14th March, 1853, out of the London-bridge Approaches Fund, to which the 8d. per ton duty carried.

The district of the Forest of Dean, in Gloucestershire, appears to be now attracting a great deal of attention amongst capitalists and speculators; and this rich, though long-neglected, field (coal and iron) bids fair at length to be fully developed, as broad gauge lines in connection with the Great Western are in the course of construction into the very midst of the collieries. We lately noticed the formation of a company for working the Woodside Collieries in this district, and in another column of this day's Journal will be found the particulars of another property, more extensive, and certainly as well situated as regards that greatest of all desiderata—close proximity to the rail. This is also proposed to be worked by a company; and if the names of respectable and influential men constitute any guarantee of the soundness and safety of the undertaking—that it will be conducted fairly and honestly—the Great Western and Forest of Dean Deep Coal Company appears to have every claim to public confidence. The evidence of the value of the property belonging to this company appears to be derived from incontestable sources, for the records of the House of Commons, the reports of the most eminent geologists, experienced practical miners and engineers, official statistics of the trade and consumption of coal in the districts and markets within the reach of these mines, form part of that evidence, and fully justify the apparently reasonable views and expectations of the promoters.

Mr. JOHN BAONALL, the iron-master, delivered a highly interesting lecture on the History and Progress of the Iron Trade, at Bilston. The lecturer commenced by advertizing to the surpassing importance of the iron manufacture to the well-being of all branches of English industry—the manufacturer or the agriculturist being interested in its continued advancement and prosperity. The use of iron had been known in all ages, and the progress of all nations in civilisation might well be measured by the degree in which they availed themselves of it. The Scriptures referred to iron, in many passages indicating its application to the ordinary purposes of life, together with the less peaceful pursuits of war. We read of TUBAL CAIN, the instructor of every artificer in brass and iron, and are told of the iron bedstead of Oo, the King of Bashan; also of chariots of iron, weapons, &c. The Greeks and Romans were well acquainted with iron in all its then known uses; and CESAR in his *Commentaries*, written n.c. 55, speaks of the iron war-chariots of the Britons, proving the existence at that early period of iron manufactures in this island. Many remains of ancient British and Roman iron-works were still to be found in England, more particularly in the Forest of Dean, where large quantities of mingled iron and sand had been discovered in the vicinity of the ancient workings, indicating in some measure the nature of the process used at that period. The original furnaces seem to have been air bloomeries, which being erected on an eminence, and filled with alternate layers of charcoal and ore, were then dependent upon the natural current of air for maintaining such an amount of heat in their fires as might suffice to fuse the materials. This same primitive furnace was to this day in use in the interior of Africa, as described by MUNGO PARK in his travels in that country (from which Mr. BAONALL read a long extract), and there could be no doubt that this description would have been equally applicable to the first iron-works in England. There were also in the times of the Romans iron-works in Spain, and in Africa along the shores of the Mediterranean.

The next step in the progress of the iron manufacture, was the substitution of artificial blasts by means of bellows, for the natural air-blast. In the letters of the Roman General AGRICOLA, when governor of Britain, were many interesting particulars about the Roman furnaces, and the manner of working them. Among other peculiarities, AGRICOLA states that the workmen wore masks of felt, to protect their faces from the heat of the iron. Great accumulations of partially fused iron had been left by their blast bloomeries in different places, which, in the present day, had been a source of considerable profit to the proprietors, from the excellent quality of the iron, which from its hardness might rather be designated steel than malleable iron. Following the progress of the trade to more recent times, we find in the reign of EDWARD I., HENRY III., and other princes of the mediæval era, various statutes regulating different matters in connection with it, principally as to the supply of timber for charcoal, indicating its growing extent. At this period, the chief demand for manufactured iron was for armour, and the decoration of churches and monasteries. There were some beautiful specimens of ancient ornamental iron-work in Westminster Abbey, and other old cathedrals, especially the tomb of QUEEN ELEANOR. The cost of that tomb was estimated at 12*l.*, equal to 18*l.* at the present time. At this era the introduction of cannon into the military service gave a fresh impulse to the iron manufacture, although the first cannon were not cast in a piece, but were fastened together by hoops, and consequently were very liable to burst. KING JAMES I. of Scotland being killed by such an accident. In the year 1483, laws were made to prohibit the importation of foreign iron manufactures, in order to foster the native trade—a clear proof of its growing national importance. We now come to the era of the Reformation—an event which, whatever Cardinal WISEMAN may say to the contrary, has had the greatest influence in promoting progress in arts, science, and social amelioration. In the reign of HENRY VIII., fresh alarm was excited on the ground of the destruction of timber for charcoal used in iron-works, and an Act was passed in 1544, on that subject. Still no one thought of using coal, and the devastations in the woods continued to such an extent, that EVELYN, in his *Sylva*, expresses his regret that there were any

iron-works in the country, stoutly maintaining that it would have been more for the advantage of England to import all her iron wares from abroad. The first individual who substituted pit-coal for charcoal, in the making of iron, was DUD DUDLEY, in the reign of CHARLES I. This gentleman, the author of a very interesting work, lately re-published, called *Metalum Martis*, commenced the use of coal at his works at Pensnett. Poor DUDLEY was the victim of much persecution on the part of his neighbours, who opposed the invention, which, coupled with the losses in the civil war, reduced him to poverty. The use of coal was, however, not the less adopted.

Another great benefactor to the Staffordshire iron trade was MICHAEL FOLEY, ancestor of the present noble family of that name. In his time Sweden was the chief seat of the European iron trade, the English iron-masters being unable to compete with the Swedes, owing to the superior skill of the latter. FOLEY went over to Sweden, gained admission to their works, in his character as fiddler, and returned to England with notes and plans of their processes and machinery. Finding the machinery he set up near Stourbridge a failure, he again returned to Sweden, improved his knowledge of their method of manufacture, and, on his return home, was completely successful. After eulogising the late ISAAC WILKINSON as the father of the present Staffordshire iron trade, MR. BAONALL referred to MR. NEILSON's discovery of the hot-blast, by which, among other beneficial results, the iron-masters were enabled, without injury, to blow out their furnaces on the Sabbath—a blessing, the importance of which, in a moral and spiritual point of view, could not be too highly esteemed, more especially when it was considered that there were now not less than 650,000 men employed in the manufacture of iron.

The Nature of Geological Evidence was partially shown, in a lecture at the Penzance Institute, by R. Q. COUCH, Esq., the President,—partially only, because, as the lecturer observed, at a later period of the evening, he had selected merely two or three examples from an array of geological testimony which might have been adduced in defence or support of the science. Having intimated that the rules laid down by Lord BACON and Sir ISAAC NEWTON, as to inductive philosophy, guided geologists in their researches and conclusions, and pointed out the uselessness of denying doctrines while facts remained untouched, the lecturer laid down his first important proposition, that an infinity of power and wisdom must be attributed to the first great cause, and went on to consider the strata composing the earth's crust; observing, that geology sought not to investigate the origin of the earth, but only the discovery of phenomena in matter after it was once formed, and the reading of traces which previous events had left behind—geology being a science of observation and not of revelation. Mineral veins were first considered. They spoke a language of formation, order, and succession, and that at a period subsequent to the era of the rocks in which they lay imbedded. These veins might be ranged under two distinct classes—1st, contemporaneous veins; and 2d, true veins. By contemporaneous veins, were meant those formed at the same period as the rocks in which they lay imbedded: they were a portion of the rock itself. Though defined like other veins, yet they carried with them no lines of separation, as in other and true veins. They had no sides, nor were they distinct from the beds in which they lay. If you split a vein of this character, the fracture separated not only the vein, but, as readily, it would go through the rock in which it was imbedded. No interruption ensued—the dip and cleavage of both being identical. Specimens might be seen at Castle Trean, Tol-Pedn Penwith, St Michael's Mount, and Botallack. True veins differed from these in almost every particular. When once formed subsequently to the rock in which it was found it had sides, and if the surrounding rock was cut away, it would stand out separate and independent from it; if a fracture was made it would only go through the vein; if a fracture was made in the rock it would go through the rock and not touch the vein, being of a different structure, composition, and crystallization. These veins differed from the rocks in character and composition; they lay in fissures; were not identical with the rocks in which they were found; and had been formed subsequently to their surrounding rocks, because they differed from them in chemical character, in their dip, strike, and underlay. Mr. COUCH then, at some length, explained the nature of cross-courses, and the manner in which they affected the main lodes. He gave an instance of a lode being divided and separated to a considerable distance. About two years ago, the specimen he held in his hand was a portion of an ironstone found in a tin lode in the neighbourhood of Camborne, in granite; but in cutting through the lode it was found that the lode in the killas, or slate rock, opposite to it was so small that it could not be the same lode. It was examined and found to be of aqueous formation; so it was suggested that it might have been fractured, and, on an examination being instituted, it was possible the separated vein might be discovered. The year following, MR. RULL, of Camborne, wrote a paper, which was now published in the *Transactions* of their Society, in which he stated that he had discovered the other lode, between 40 and 50 fathoms off, in the killas, and at the point in which the killas joined with the granite, he discovered another piece, which fitted exactly into this piece, showing that the two had once formed one, although the great tin lode had thrown them 40 fathoms one from the other. Thus there were certain rules in geology whereby the unknown might be made known. The lecturer next turned his attention to crystallization, in which department of his lecture some interesting remarks were made as to the change gradually effected in crystals, beautiful and complete specimens proving this change existing in MR. CARNE'S collection. MR. FOX'S researches in this science were referred to. Rocks next came under the lecturer's notice—igneous and sedimentary, with their sub-divisions. This brought him to an explanation of the strata forming our globe, and here his remarks were amply illustrated. He explained the various phenomena of dislocation, upheaval, and subversion; showed how geologists had ascertained with certainty the order in which these strata had been heaped up; and then came to a consideration of the world's age, and the proofs that it numbered infinitely more than 6000 years. We were to receive this subject of geology without hesitancy and without doubt; and, in pursuing these things, entertain no fears of making any discoveries which should contradict the intentions of the Creator. Geology introduced us to the physical constitution of our globe—it was, in fact, the Earth's history of her own times, written in characters Nature herself had provided, which left no doubt on the mind; it was a history full of intelligence, and as interesting as a fairy tale.

MR. C. V. WALKER, in his second lecture on "Electric Telegraphs and Electric Clocks," at the London Institution, discussed and illustrated the following portions of the subject:—Chemical telegraphs, electro-magnets, galvanometers, aereograph, telegraph establishments, construction, maintenance, despatches, how worked, history of a telegraphic message, railway uses, telegraph companies, literature of telegraphy. In relating the history of electric telegraphs, MR. WALKER placed Messrs. COOKE and WHEATSTONE in the van of the host of mechanicians and men of science who have attained the force required from the electro-magnet. After completing the explanation of the philosophical part of this subject, he gave a particular numerical account of the telegraphic accommodation afforded to the public by the South-Eastern Railway Company, as well as by the Electric Telegraph Company. From this it appeared that the former, on 290 miles of railway, had 76 telegraph offices open to the public, or one office to every 3*1*/₂ miles of line; with 128 instruments and voltaic batteries as the source of power, containing 4000 pairs of plates. The wires, or telegraph conductors, of the Electric Telegraph Company extend over 5500 miles, on which are 237 offices, or one office to every 23 1*1*/₂ miles; of which offices 16 are always open day and night, and 47 open on Sundays. One telegraph instrument being placed in the library of the institution, and another behind the lecture table, a despatch was worked from the latter to the former, and delivered in writing to the chairman, the staff of clerks being employed.

In MR. WALKER'S third lecture, delivered on Monday, specifically on "Electric Clocks," the elements of the subject were illustrated in the following order:—Pendulum, escapement, clock, electric pendulums, electric clocks, Greenwich electric clock, time-ball, time-signals, distribution of time-signals, transit-signals, comparison of longitudes. Of electric clocks it was shown there are two kinds—those in which the prime mover is an ordinary regulating clock, and those in which the prime mover is an electric clock, and the latter may move itself only, or may move other clocks. These features were pointed out in describing WHEATSTONE'S and BAIN'S electric clocks, it being noticed that the former was exhibited and described at a meeting of the Royal Society, on the 16th Nov. 1840, and BAIN'S patented Jan. 8, 1841, and his pendulum in 1843. These and the other subjects of the lecture were amply illustrated by drawings, models, and the apparatus, and electric clocks, and pendulums themselves. The electro-magnetic clock, constructed by MR. SHEPHERD for the Royal Observatory, was represented by a large working model, and described in

its five-fold operations, in which it keeps itself going, distributes time to other clocks, liberates the Greenwich time-ball (the mechanism and process by which this is effected being exhibited in the model), liberates the Strand time-ball, and sends hourly time-signals to London and other stations. This was exemplified by a clock on the table before the audience, the motion of which was actually maintained by the Greenwich clock, a telegraph wire from the London station of the Electric Telegraph Company being led from Finsbury-pavement over the lamp-posts in Finsbury-circus into the premises and theatre of the London Institution. The electric circuit in this case being 12 miles in length, consisting one-half of wire, and the other of the earth itself, the conducting power of which, for electricity, as operating in telegraphic communication, MR. WALKER had fully explained in his first lecture.

NEW MOTIVE POWER.

A company, just established in New York, have issued a prospectus of a new power, and claim for it the most extraordinary and marvellous qualities. It is called Salomon's carbonic acid gas engine; and the projectors represent their belief, that it is destined soon to surpass the highest anticipated performances of Ericsson's calorific-engine, as much as Capt. Ericson believes his power capable of eclipsing all previous efforts. The proprietors call it the "crowning work of motive-power," which is about to consummate and characterise the meridian glory of the 19th century. Carbonic acid gas is generated in any desired quantities, by the action of diluted sulphuric acid upon chalk. At the ordinary temperature and pressure, carbonic acid attains the gaseous state; but when subjected to the pressure of 36 atmospheres, or 540 lbs. to the square inch, at a temperature of 40° Fahrenheit, it has a pressure of 1080 lbs. to the square inch. Its expansibility by heat, therefore, will create a motive-power of unlimited capacity. MR. H. W. ADAMS, a practical chemist, made such experiments in 1850, with this gas, in its generation, its reduction to a liquid by a pressure, and also to a solid, that he feels justified in reporting on the value of the invention, and in testifying to its immense power as a mechanical agent.

The practical operation of the new engine is as follows:—"The gas is generated, in the first instance, as before mentioned, and is forced from the generator, under a pressure of 540 lbs. to the square inch, into a reservoir of small copper tubes, all united so as to form but one conductor main for the liquid, and so bent that a considerable length of this tubing is placed in an air-tight box, whose temperature is kept at 32° by an exhaust pump, worked by the engine. Upon entering this copper tubing from the generator, the gas is reduced to a liquid, and the condenser is thus charged. The pressure upon this copper tubing is now 540 lbs. to the square inch. A force pump, worked also by the engine, is connected to one end of the copper tube, and at every stroke forces a given amount of carbonic acid gas into a gas holder, or substitute for a steam-boiler, whose temperature is kept at 45°. When the liquid enters this reservoir, it is at once expanded into gas, and exerts a pressure of 1080 lbs. to the square inch. Under this pressure, a valve opens its communication with the piston, which is worked by the gas; then an escape valve opens in communication with the other end of the copper tubing, or condenser, while, at the same moment, the first-named egress valve closes, and another opens at the other end of the piston. The result is, that the piston is forced back into the cylinder under a pressure of 1080 lbs. to the square inch, while the gas at the other end of the piston is forced out into the copper tubing and condensed to a liquid by an instantaneous reduction of temperature to 30°, and under a pressure of 540 lbs. to the square inch. Thus a perpetual circuit of power is kept up."

This new power is said to be comparatively inexpensive; and, among other advantages, that it will not probably cost \$5 to run a vessel from the United States to Europe.

ANOTHER NEW MOTIVE POWER.

[FROM A CORRESPONDENT.]

The American commercial world is just now greatly excited by the invention of MR. J. E. SERRELL, C.E., of New York, which, according to report, is to "eclipse all competitors." Among the many advantages claimed for the Serrell engine are—

1. No furnaces, boilers, air-pumps, condenser, or feed-pumps are used.
2. Explosions are rendered impossible, the amount of heat required not exceeding that of the atmosphere by which it is surrounded.
3. The rapidity with which the machinery can be put in motion, no time being lost in the lighting of fires or creation of a motive power.

Believing that some account of the construction of this novelty will be of interest to your readers, I append some particulars from an American writer:—

"The invention (the credit of which is due to MR. JAMES E. SERRELL, Civil Engineer, of New York) consists in the application of the expulsion and consumption of the air in which we live and breathe, by which means a partial vacuum is produced. The working parts of the engine are similar to those now in use. Exhausting-chambers are arranged which connect with a pipe to both ends of the cylinder or cylinders; these chambers are made with covers, to open the whole size of the top; in these exhausting-chambers is placed a large lamp, with the top of the wick above the upper edge of the bottom part of the exhausting-chamber (the best substance for burning found thus far is alcohol); by lighting the lamp and closing the cover, a vacuum of from 8 to 11 pounds pressure of air on the square inch is produced.

"This principle can be tried by any person curious or sceptical, by taking a basin of water, and floating on the surface of the water a lighted chip of wood, or a few drops of alcohol lit on a small piece of cotton, then take a glass or tumbler, and carefully place it over the burning body, so that the edge of the glass sets fair on the water, in which form it will partially consume the air under it to the extent of about one-half of its former bulk, by which half a vacuum is produced, or about 8 lbs. on the square inch, when used as applied in the Serrell engine. For example, we will take a marine steam-engine, with cylinders 5 feet diameter and 6 ft. stroke, the engine working from 4 to 10 lbs. pressure of steam on the square inch, and a vacuum of 12 lbs. on the square inch, in all 18 lbs. effective pressure on the piston. This cylinder contains equal to 25 circular feet, with 18 lbs. pressure on the square inch to work it. A cylinder of 7 ft. in diameter is equal to 49 circular feet, with an atmospheric pressure of half a vacuum, or 8 lbs. on the square inch, will give a power equal to the steam-engine, by increasing the cylinder 2 feet in diameter, or in this proportion.

"The operation of the Serrell engine is as follows:—When required to be put in motion, the lamp in one of the exhausting chambers is to be lit, and the cover closed, by the engineer, which will cause the engine to move instantly; four exhausting chambers placed at 90° apart in a circle, the covers of which are opened and closed by the motion of the engine; and as each cover rises successively, a revolving lamp-lighter passes between the cover and the chamber, and lights each lamp in the exhausting chambers. The instant the lamp is lit the cover is closed, which exhausts the air from the cylinder to which it is attached, until it arrives at the top or bottom of the stroke, when an air-valve in the pipe between the cylinders and exhausting chamber is opened, which takes off the pressure from the cover of the exhausting chamber and fills it with fresh air, and supplies the pressure on the piston-head for the next motion, and a chimney over the exhausting chambers carries off the foul vapours which are forced out of the exhausting chambers by the cool fresh air which comes into them at the bottom through the valve and pipe between them and the cylinders. By the application of a vacuum gauge to one of the exhausting chambers, a vacuum is produced of about 11 lbs. pressure on the square inch, or a column of mercury is held up of 22 in. in height. By carefully computing the amount of alcohol consumed by the small experimental engine, we have come to the conclusion that three hogheads of alcohol will work a marine engine with cylinders 7 ft. diameter and 6 ft. stroke for 24 hours at the usual speed."

THE "JOHN BULL" NUGGET.—During the week, we have visited this monster specimen of gold, which is on view at Messrs. Thomas Ward and Co., Bond-court, Walbrook. The weight of it is 45 lbs. 6 ozs.—being the largest that has hitherto been discovered; its length is about 11*1*/₂ in., and the mean girth 10 in. There appears scarcely any quartz with it; indeed, it may be said to be almost free from any admixture. At the rate of 4*l.* per ounce, its value would be 218*l.* This remarkable curiosity was found by Mr. George Potter and party on the 9th October last, at Bendigo Creek, not far from the spot where the Victoria nugget was obtained. It was found about 18 in. below the surface; and, notwithstanding its great richness and bulk, nothing auriferous was found in the sand or the immediate localities. It is the intention of the proprietors, previous to valuation, to give the public an opportunity of inspecting it; and certainly no one should omit seeing this natural curiosity, which deserves the name the owners have bestowed upon it of "John Bull."

ATLANTIC AND PACIFIC JUNCTION COMPANY.

[FROM A CORRESPONDENT.]

While the lines of communication between the Atlantic and the Pacific by the several routes—viz., of Tehuantepec, of Nicuaraqua, and of Panama—have enjoyed the advantage of costly and laborious surveys, conducted by gentlemen of unquestionable ability and extensive attainments, and the impracticability of these lines all but demonstrated by the results, it cannot but be a source of the greatest regret to all who feel an interest in the question, that the only lines which hold out a reasonable hope of yielding a satisfactory solution of the problem should yet be permitted to slumber in comparative oblivion. We cannot, therefore, employ a portion of our space more profitably, perhaps, than by recalling the attention of the public to facts which, although faded from recollection, rest upon evidence too substantial to admit of being questioned.

Of these two lines, that which an inspection of the map might lead us to regard as the most advantageous—viz., that between the site selected by Paterson, more than a century and a half ago, for his colony of New Caledonia, and the Gulf of San Miguel—has been of late brought so prominently into notice by the persevering energy of Dr. Cullen, aided by the hasty observation of a flying survey, that we may well be excused from adding more to the mass of information already accumulated respecting it than to observe that, however great the advantages it offers of a rapid transit from one ocean to the other, it labours under the serious defect of having its entrance into the Pacific too deeply embayed within the depth of Panama to be at all seasons, and under all circumstances, a desirable point of departure for vessels bound to the western shores of South America, or to the countries beyond the Pacific. So little are we acquainted with the true position of places situated in the Bay of Panama, that, as has been already shown by Dr. Cullen at page 139 of the second edition of his *Baron*, there is a difference of no less than 13° 30' in the longitude of Punta Garachine, in the Admiralty charts 10 and 11, "West Indies"—a variation which will occasion a difference of about 18 English miles in calculating the bearing and distance between this, the most southerly point at the entrance of the gulf, and Punta Mala, the southwest point of the Bay of Panama, giving in one case a distance of 136 3 English miles in a direction south-west 6° west 10° 1' west between these two points, or, in the other, a distance of 117 6' such miles, in a direction south-west 6° west 7° 11' west, or 4° more southerly. Now, according to Dr. Halley, the direction of the wind along the west coast of South America is, for nine months of the year, from south and south-west; so that a vessel taking her departure from this point would, during three-fourths of the year, have to contend with head winds for a distance of above 100 miles to clear the bay, while a vessel bound from Cupicá more than clears the bay, with a course only 11° 11' west of a west-north-west course.

Leaving, however, this part of the question as, perhaps, too speculative in the present imperfect state of our knowledge, let us come to facts respecting Cupicá and its neighbourhood—facts which, having happened more than a quarter of a century ago, were afterwards recorded without partizanship, and were published in the midst of witnesses, who could have contradicted the statement if false or exaggerated.

Senor Cardenas, one of the unhappy victims of the *Amazon*, on the 4th of January, 1852, published the following statement in the *Reverberacion Mercantil del Atrato*—a paper established at Quibdo, the capital of Choco, on the 20th of May, 1834:—"In the month of January, 1820, when, by a general combination, the Spaniards moved their forces towards the interior of New Granada, and invaded this province (the Choco) by water, with troops they had in Cartagena, the Governor (Colonel Cancino) was at the port of Buenaventura when the information of the Spanish movements reached him. The captain of the frigate *Rosa de los Andes* (John Illingsworth), which was lying there, offered his services for the conveyance of Colonel Cancino (who had decided on attacking the enemy on his flanks) in his frigate to the Bay of Cupicá. Here it was observed, that after crossing the forests which interposed between the Pacific and the western tributaries of the Atrato, they would be unable to continue their progress, unless furnished with canoes. To meet this unforeseen difficulty, Col. Cancino had a six-oared launch, belonging to the *Rosa*, dragged across the isthmus, an operation which occupied 10 hours, part of which was consumed in cutting down the bushes which obstructed the path, when the boat was re-launched on the Napipi, at a place called the Chequeria, separated by a nearly level tract of 1500 yards from the *Quebrada del mar* (ravine of the sea), a stream which falls into the Bay of Cupicá, and conveyed the colonel and his suite without difficulty to this city (Quibdo), where the boat was seen by the whole population, and where it has been suffered to fall in pieces and rot."

If this fact (continues Senor Cardenas) can be considered of any consequence, it is certain that we relate it with entire confidence on the spot, and in the presence of above 8000 contemporary witnesses. Colonel Cancino, Captain Joaquin Andrade, the doctor of the frigate, and a person named Descrien, were the individuals composing the party which descended the river to the village of Murri, where the enemy was supposed to be encamped. Of this number we know that Col. Cancino, who descended the river, and Capt. Illingsworth, who superintended the operation of carrying the boat across the isthmus, are yet (14 years after) alive." Here we have the facts established, upon the most unequivocal evidence, of a frigate's six-oared launch, capable of carrying 15 armed men, dragged, in the short space of 10 hours, by the efforts of her own crew, across the ridge which separates the waters of the Pacific from those of Napipi, by a track which they had to form as they advanced, and which must have occupied at least one-third of the time, leaving scarcely seven hours for the time consumed in the transit, and demonstrating in the most practical manner the smallness of the elevation to be surmounted, and the perfect ease with which it may be accomplished. Indeed, we have a letter at this moment before us, written from Paris, in December last, which almost demonstrates the fact of this Loma del Mar, or maritime prolongation of the Andes, being intersected by transverse valleys, not much above the level of the Pacific, and inviting, as it were, the formation of a canal thence to the Atrato.

The letter in question says—"L'on ma soumis confidentiellement la carte et la travail faits sur les lieux mêmes qu'a habité son Auteur. Il raconte que dans le parcours de la baie de Cupicá à l'habitation appelée Napipi, quis se trouve à l'extreme de la vallée sur une petite hauteur; il ya une longue de six lieus, sur une mille de largeur; et d'une élévation de douze mètres au dessus du niveau de la mer : cette vallée très fertile est souvent inondée. Il la considère comme une rupture de chaîne des Andes."

Here, if the writer be not deceived, we have a subsidence of the littoral chain to within only 36 ft. of the level of the Pacific, extending for a length of 18 miles, with a mile in breadth frequently flooded, and almost forming a ready-made canal for a large portion of the distance to be traversed. The Bay of Cupicá runs nine miles inland by six miles in breadth, and capable of receiving the largest fleets, free from rocks or shoals, with ample depth of water, and good holding ground. The Atrato has a mean depth of about 10 fms., with a moderate current; while the bars at its several mouths, which have heretofore caused a bad reputation to be given to this magnificent river, and "throws it out of court," are easily avoided, simply by cutting a three-mile passage from the pocket or "cod" of the Gulf [Sp. Culata del Golfo] into the broad neck of the river, where there are 90 ft. of soundings. The Bay of Candelaria, and the anchorage under Punta Arenas, affords ample shelter and great holding ground for vessels of the largest size; and the valuable timber which would have to be cut down in the progress of the work would go a considerable way in meeting the cost—in a word, the Cupicá line only wants the advantage of a scientific survey to carry off the palm of competition.

The French survey of the Cupicá, Napipi, and Atrato route was made by a medical officer, Mons. J. F. Landreau, M.D. of Paris, in the year 1848; and his report to Mons. Lamartine, then Minister for Foreign Affairs, is dated 16th June, 1848. An *ex officio* copy may be examined in the Chamber of Commerce, in Paris. This gentleman's address is at the French Consulate, Guayaquil.

THE EUREKA DIAMOND—WONDERFUL IF TRUE.—We have received a communication descriptive of this remarkable stone, which was found within two miles of Columbia, in Toluquane county. It is to be exhibited in Stockton and this city for a short time, prior to the departure of the owner for New York. Our correspondent informs us that it has been carefully and scientifically tested by Dr. F. Banks, a graduate of the Medical University of London, who pronounces it beyond all doubt, to be a diamond of very rare purity. It is said to be larger than the crown diamond of England, which is valued at ten millions of dollars. We are informed, by a gentleman who has seen it, that it is about the size of a pigeon's egg, but is of course still in the rough. Should this turn out to be true, its value will be enormous, and a new source of boundless wealth open to our miners; for this of course cannot be the only stone of this kind in the country. Diamond mines are just as well defined as gold mines.—*San Francisco Herald*, Feb. 13.

A few days since, a workman employed in one of the mines of Rive-de-Gier (Loire), in order to be revenged on a comrade, set fire to a shed in the pit in which he was at work, and by which the man, with five other of his companions, was suffocated. The incendiary, who is only 18 years of age, confessed his crime, and was sent to prison.

PROGRESS OF JOINT-STOCK COMPANIES.

COMPANIES PROVISIONALLY REGISTERED DURING THE YEAR 1852.

- Jan. 7—United Kingdom Submarine Telegraph Company.
15—Tamar Manufacturing Manure and General Trading Company.
16—Central Australian Gold Mining Company.
20—Gold Importation, Reducing, and Refining Company.
22—Australian Mutual Gold Mining Association.
22—Sierra Nevada Gold Mining and Crushing Company. (Name afterwards changed to Sierra Nevada Gold Ores Mining and Crushing Company.)
22—Jamaica Copper Mining Company.
22—Australian Gold Diggings Company.
22—Mint and Bullion Company of Australasia.
22—Royal British Australian Mint Association.
23—Colonial Gold Company.
24—Port Phillip and Colonial Gold Mining Company.
27—West India Mining Company. (Name afterwards changed to Royal West India Mining Company.)
27—Quartz Rock Mariposa Gold Mining Company.
Feb. 16—Sacramento Gold and Quicksilver Mining, Crushing, Gold Dredging, Smelting, and Refining Company.
18—Gold Purchase and Exchange Company for California and Australia.
20—Oldham Coal Company.
20—Alliance California Gold Mining Company.
25—New Granada Company.
March 6—Cumberland Australian Gold Mining Company. (Name afterwards changed to Anglo-Australian Gold Mining Company.)
9—"Le Mineur" Franco-Anglo California Gold Mining Company.
10—Screw Steam Collier Company.
13—Tan-y-Rhôe Slate and Slab Company. (Name afterwards changed to Machno Slate and Slab Company.)
16—Gold Importation Company.
2—Costa Rica Company.
2—New South Wales Gold, Silver, and Copper Mining Association.
5—Crystal Palace Preservation Company.
7—Bituminous Manure Company.
13—Mariquita and New Granada Company.
14—Provincial and Continental Gas Company.
15—Tabatinga Del Rey Gold Mining Company of Brazil.
19—Yorkshire Mining Company.
23—Glenaulin and Carvilleen Mining Company of Ireland.
27—Continental Timber Preserving Company (Banner's Patent).
29—Callington Gas and Coke Company.
29—Surrey Collieries Company.
30—Patent Weighing Crane and Weighing Machine Company.
May 30—Improved Wheel Manufacturing Company.
1—West Granada, or Veraguas, Gold and Silver Mining Company.
3—Australian Burrash Burrash Gold Mining Company.
11—National Patent Steam Fuel Company.
17—Crystal Palace Company.
26—Australian Emigration Company. (Name afterwards changed to Australian and General Emigration Company.)
June 2—Shale, Manure, and Naphtha Company.
3—Cardiganshire Mining Association.
11—West India, Pacific, and Australian Steam Navigation Company, *via* the Isthmus of Panama.
12—Port Phillip Emigration, Colonization, and Investment Company. (Name afterwards changed to Port Phillip and General Emigration, Colonization, and Investment Company.)
15—Australasian Emigrants' Monetary Aid Company.
18—Fairhead Harbour Company.
21—Steam and Atmospheric Patent Propulsion Company.
23—Patent Silicious Stone Company.
27—British and Australian Clipper Steam-packet Company.
July 3—Gold Trading Company (Australia).
5—British Universal Emigration Company.
5—ILiverpool and Manchester Australian Gold Company.
13—Chiriquí Road Company.
27—Emigrants' Own Shipping and Emigration Company.
28—Victoria Coal Company.
28—Garnett and Moseley Gold Mining Company of America.
29—Wright's Australian Emigration Company.
Aug. 5—Ocean Telegraph Company.
7—Loan and Trust Company of New Zealand. (Name afterwards changed to Trust and Loan Company of New Zealand).
10—New Zealand Local Steam Navigation Company.
16—Australian Employers and Emigrants' Registration and Investment Comp.
16—Victoria Mining Company.
18—Paddle-Wheel Company.
19—Hartopp and West Kerry Copper Mining Company.
23—Port Tennant Steam Fuel Company.
23—Cambrian Glass Company.
24—Anglo-Iberian General Mining Company.
30—Australian Water-Works Company.
Sept. 3—Llynn Vale Iron Company.
18—Patent Hollow-Ware Company.
21—West End of London and Crystal Palace Railway Company.
28—Brazilian Diamond and Gold Company.
30—Australian Inland Carrying and Conveyance Company.
Oct. 1—Welsh Potos, Silver-Lead, and Copper Mining Company.
13—Australasian Brewery Company.
16—Brighton Australian Gold Mining Company.
23—Consumers' Hydro-Carbon Gas Company.
27—Magdalena Steam Navigation Company.
28—Colonial Fibre Company.
28—Castlemain Estuary Reclamation and Maine and Laune Navigation Co.
Nov. 4—London and Australia Direct Screw Steam-packet Company.
4—London and Westminster Thames Viaduct Railway Company.
6—North of Ireland Mining and Pier or Harbour Company.
6—Anglo-Australian and Gold Diggers' Mutual Life Assurance Annuity and Guarantee Company.
17—West of England and Dean Forest Coal Company.
20—London and Penzance Serpentine Company.
Dec. 4—Crystal Way Company.
13—Linares, Seville, and Malaga Transit Company.
13—Rhôe Bach Slate Quarries Company.
13—Chemical Manure Company.
18—Port Lincoln Agricultural, Gold and General Mining Company of South Australia.
20—Peel River Gold Mining Company of Australia.
22—Port of Southampton Emigration Company.
23—Imperial Australian Trading, Colonizing, and Mining Company.
23—Port Royal and St. Andrew's Copper Mining Company of Jamaica.
23—British Sugar Refining Company.
24—Great North of England Iron Company.
29—Australian Coal and Inter-Colonial Steam Navigation Company.

- 15—Australian Mutual Emigration and Colonisation Association.
20—Australian Emigration Company.
1—International Telegraph Company.
5—Cardiganshire Mining Association.
11—West India, Pacific, and Australian Steam Navigation Company, *via* the Isthmus of Panama
12—Port Phillip Emigration, Colonisation, and Investment Company.
18—Fairhead Harbour Company.
19—Connemara Mining Company of Ireland.
24—Steam and Atmospheric Patent Propulsion Company.
29—British and Australian Clipper Steam-packet Company.
July 3—Gold Trading Company (Australia).
5—British Universal Emigration Company.
5—ILiverpool and Manchester Australian Gold Company.
13—Chiriquí Road Company.
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24—Great North of England Iron Company.
29—Australian Coal and Inter-Colonial Steam Navigation Company.

COMPANIES WHICH HAVE FAILED TO REPORT THE APPOINTMENT OF AUDITORS.

- Barossa Range Mining Company.
Royal Irish Railroad Carriage Company.
William's Steam Fuel Company.
People's Colliery Company.
Craig Dhu Slate Company.
Ince Hall Coal and Cannel Company.
Imperial City of Rome and Italian Gas Light and Coke Company.
Cardiff Steam Navigation Company.
Universal Emigration and Colonization Company.
Marmite Mining Company.
Santa Ana Mining Company.
Llanollen Flagstone Company.
Great Seat Working Company of Ireland.
British Seat Charcoal and Manure Company.
Times Fire and Property Assurance Company.
Ecton Mountain Mining Company.

LIST OF PATENTS COMPLETED UNDER THE NEW LAW

- The Hon. W. E. Cochrane, Albany-street—Unloading coals from ships or vessels.
J. A. Coffey, Providence-row, Finsbury—Apparatus for performing various chemical and pharmaceutical operations, hereby denominated, "Coffey's Improved Patent Escapular Apparatus," parts whereof are applicable to steam boilers, steam and liquid gauges, stills, and stoppers.
W. Simpson and J. S. Isaac, Maidstone—Improved composition to be used principally as a substitute for wood and other materials, where strength and lightness are required in the manufacture of various articles.
M. A. Garvey, Jeffrey-terrace Kentish-town—Invention for more effectually dissipating the shock of collision in railway trains, reducing the surface exposed to atmospheric resistance, and diminishing oscillation by making portions of the whole of each carriage elastic in every direction, and increasing the power of the carriage to resist severe pressures by means of metallic tubes in its longitudinal angles.
J. McDowell, Walkeshaw Foundry, Johnstone, N.B.—Cutting or reducing wood and other substances.
J. Wilkinson, Jun., West Bromwich—Machinery for cutting or shearing iron and T. Lightfoot, Accrington—Glasses for pottery and other similar materials.
O. D. Hadley, Newcastle-upon-Tyne—Getting coal and other minerals.
J. Hodges, Liverpool—Machinery for draining land.
W. McTellan, Glasgow—Manufacture of rivets, and in working in metal.
J. Stamford, Dover—Machinery or apparatus for manufacturing bricks, tiles, and similar building materials, which is hereby denominated "the complete brickmaker."
W. Walker, Liverpool—Wheels for railway-carriages, and in the mode or modes of manufacturing the same.
T. Lawes, City-road—Generating steam.
M. J. Roberts, Gerrard's-cross, Bucks—Manufacture of oxides of zinc and tin.
J. Remington, Chelsea, and Z. Deacon Berry, Pinhook—Gas meters, or apparatus for measuring gas or other elastic fluids.
H. Bernoulli Barlow, Manchester—Manufacture of cylinders for carding cotton and other fibrous substances.
W. Senton, Pinhook—Construction of iron vessels, and in sheathing or covering the E. Whale, Sulop—Apparatus for burning candles, and in horological apparatus attached thereto.
M. Poole, Serie-street—Constructing bridges, viaducts, and such like structures.
T. Kidwood, Russell-square—Manufacture of gelatine.
A. B. Berard, Paris—Construction of jetties, breakwaters, and docks, and other hydraulic constructions.
J. Aspin, Blackfriars—Shipbuilding, and in machinery for propelling.
C. W. Siemens, Adelphi-terrace—Engines to be worked by steam and other fluids.
D. Grant, Greenwich—Means of applying the heat derived from combustion of gas.
C. W., and J. J. Harrison, Richmond—Protecting insulation telegraphic wires.
J. Rose, Aldersgate-street—Locks.
S. Hogan, Nassau-street—Separating gold from the ore.
J. Hick, Bolton-le-Moors—Method of lubricating revolving shafts and their bearings.
G. Thornton, Yorkshire—Propelling vessels.
J. Carter, Oldham—An improved rotary engine.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

- J. J. Catterson, Islington, compound carriage-step.—De J. L. Benoit Vandenberg, Montague-aux-Herbes Potagers a Bruxelles, extending table.—W. Duck and W. Wilson, Southwark, Duck and Wilson's improved high-pressure cocks.

IMPROVED PROPELLER FOR STEAM-VESSELS.—Mr. Joseph Cowan has arranged a direct-action propeller for steam-vessels, working without cranks, the direct action of a revolving cylinder being sufficient. The principle is something on that of a duck's foot. There are two shafts—an upper and a lower; the propeller is hinged to the upper, and plays against a stop attached to the lower one; it thus stands in a vertical position going out, and returns horizontally. To back the vessel without stopping the engine, the bottom shaft is turned by a lever, which shifts the stop from its place, the propeller passes with the outstroke, rights the stop, the blade works the reverse way, and turns the ship quite round, with her head in a contrary direction.

TURWLAR BRIDGE ACROSS THE NILE.—There is an iron tubular bridge now being prepared at the manufactory of Messrs. R. Stephenson and Co., for erection across the Nile at Benra. Differing from the Britannia Bridge, across the Menai Straits, the trains pass along the top of the tube instead of through the centre, and room for the passage of only one line of carriages at a time being afforded. A footpath will be made on each side of the rails, and no doubt this convenience will be appreciated by the dwellers on the banks of the Nile. The bridge is 20 ft. above the ordinary level of the water, and the centre portion of it is ingeniously contrived to swing on a pivot, so that the boat traffic may be secured during the rising of the Nile. When it is known that a part of the structure will be cast in London, and that the different pieces of the bridge will only meet at the point of their destination, we can appreciate the mathematical correctness with which the edifice must be finished.

GAS FROM WOOD.—A dentist in Washington (U.S.), has taken out a patent for generating gas from simple wood. A correspondent says:—"This is no idle fiction; we examined the works, and saw the light burning in juxtaposition with that created from the Scotch coal, and it was equal to it both in purity and brilliancy. The inventor has entered into a contract with a company in Wilmington, North Carolina, to light up that town with this material. Pine wood, with which that country abounds, is preferred to any other, and the gas generated from it costs comparatively nothing. It is estimated that every house in Norfolk, and all the public lamps can be lighted for a sum not exceeding \$1 per night. This is almost as cheap as moonshine. The apparatus for generating this gas is extremely cheap and simple, and we expect in a few years to find it in universal use—accessible alike to the poor as well as rich."

THE LONGEST STRAIGHT LINE IN THE WORLD.—The Illinois Central railroad is 700 miles in length, and has 626 miles in a straight line, which precludes the road for a speed which no other road in the United States is capable of.

IRON AND GLASS ROOFS.—The span of the new iron and glass roof of the Stour Valley station of the London and North-Western Railway in New-street, Birmingham, will be the largest in the kingdom.

THE ALSTON MOOR MINING COMPANY.
Conducted on the "COST-BOOK PRINCIPLE."

Divided into 4000 shares of £1 each.

The deposit to be paid at the time the shares are taken up.

MANAGING AGENT—Mr. William Liddle, Hayring.

SECRETARY AND PURSER—Mr. James Westmorland, Alston.

OFFICES (pro tem.)—HUNDY HALL, ALSTON.

The Directory is composed of gentlemen selected from the company who are thoroughly conversant with mining matters.

This company has been originated by a number of experienced mining proprietors and agents, whose time has been devoted to the development of the immense mineral resources in that part of Cumberland known as Alston Moor.

The principal consideration which induces the originators of this company to bring their views before the mining public generally was, that a large portion of mining ground being occupied by small companies, whose means are inadequate to make the necessary trials for the proper development of the mineral resources of the district, and that from the principle of combination an opportunity will be afforded to those who have speculated unsuccessfully, as well as others, of securing a certain return by a small outlay.

The first mine which the company have embarked in is the well known Calvert Lead Mine, purchased by the present company of the late lessees, and is held under grant, or take-note, for the term of 21 years from September, 1851, and is renewable at its expiration.

In order to bring impartially before the mining community the valuable properties of this mine, the company have invited Adam Murray, Esq., F.G.S., London, to make a report; and the following is the report of that gentleman:

THE CALVERT LEAD MINES.

This property is situated in the celebrated lead district about Alston Moor, about eight or nine miles along the line of the high-road southward from Alston towards Barnard Castle, in the elevated Moorlands rising to Cross Fell on the sources of the rivers Tyne and Tees; bordering Cumberland, Westmorland, and Durham.

It is surrounded by mines that have been of a very productive character.

Below it to the south eastward are the Tees Side Mines, where the experiment of proving the mineral-bearing properties of the lower strata is fraught with great advantage to this property. To the west across the Tees are the Swarthbeck Mines, which were valuable workings in the great lime-time, on one of the lodes.

To the north it is surrounded by the high grounds the property of the Greenwich Hospital, from whence several intersecting lodes pass into it, and to the eastward it receives a large and valuable lode from the Dosey Mine.

In the Alston district the strata have an horizontal bearing dipping slightly eastward, and may be divided into the productive and unproductive strata.

The great limestone, of a feld character, has been the great lead-bearing bed in hills, forming the summits of some of them; between this and the lower productive rocks a series of argillaceous, siliceous, and calcareous rocks occur, of very slight lead-bearing qualities as yet proved.

The succeeding productive rocks in which the Calvert and neighbouring mines are situated, constitute about 50 fms. of calcareous, siliceous, and argillaceous rocks based on the great basaltic rocks; below that layer there are a succession of rocks of the same order, which the Smithgill to the west, and the Tees Side to the east, are in process of proving. The Calvert Mine is an extensive sett in this series; its greatest length is about 2 miles in an east and west direction, and its average breadth is about three-quarters of a mile.

Its prominent feature is the large lode called the Calvert lode, which takes a direction, continuing in the greatest length, and passing through the highest ground in the sett, being about 13° north of east and south of west.

There are several other lodes in the sett, of which the Cross Fell Vein, or which is probably the Dosey vein, is the principal; this lode passes acutely across the Calvert vein, forming a junction with it, and then continues its course through the central part of the property, where it receives the junctions of several veins; this part of the sett has not been proved to any further extent, the whole attention of the old miners being devoted to the Calvert lode, which they worked very extensively, for more than a mile of the eastern portion of it, confining their operations to the upper portion of the strata, which the facilities of the high ground afforded them.

The old workings are distinguished by a shallow adit cross-cut driven in the side of the mountain, at a considerable height above the rivulet called Tynehead; at this level the old working proceeded a considerable distance eastward.

The present company have brought in another cross-cut adit, 13 fms. below the old level, and have made a very fair discovery in driving on the course of the same lode, showing that the properties of the lode are still capable of bearing ore below the old workings.

However, the important point to be carried out, and bearing a considerable degree of certainty of success, is to open at a deep level the remainder of this valuable lode, which is untouched westward, and to carry on this main level to the junction of the Dosey, and thence following that vein to its intersection with the others named.

To accomplish this, and to erect the necessary machinery, buildings, floors, &c., for returning the lead produce, would require a capital of about £3000. And the following would require to be done:

A deep adit level to be driven from the Tees, at the southern extremity of the property, northward about 90 or 100 fms., which would be about the distance to intersect the Calvert lode, and then driven eastward particularly, (also westward) on the course of that lode, into the unexplored space, which is about 500 to 600 fms., and when the Dosey vein was intersected to drive westward on its course, about 250 fms., to its junction with the Broadmead and Cross-gill Head veins.

This level would be carried out with a probable certainty of small expenditure and successful issue, as one of the series of the very productive veins, called the Scar limestone, crops out at the side of the Tees, below which it would begin.

The roads and facilities of sending ore to market, per the railroad for Alston, and the highly productive nature of the various mines, are too well known to comment on here.

ADAM MURRAY.

76. Cornhill, London, Feb. 5, 1853.

This plot of ground has also been reported upon by Mr. JOHN WALTON, of Nenthead, as follows:

REPORT OF CALVERT'S FOLD LEAD MINE.

Calvert's Fold Lead Mine is situated in the manor of Tynehead, in the parish of Alston, in the county of Cumberland, in a triangular plot of ground at the source of the Tyne and Tees rivers.

On the north it is bounded by the valuable and extensive mining manor belonging to the Commissioners of Greenwich Hospital, on the east by the Charnhill Head Lead and Silver Mines, on the south by the Dosey, Tyne Greens, and Tees Side Mines; and on the west by the once rich mines of Swarthbeck, Dun Fell, and Cross Fell.

The principal vein in the grant is the Calvert north vein, extending from the River Tyne on the east to the River Tees on the west—and is in extent about 2 miles. To the south of this there is also a promising vein called Calvert Sun Vein, which is very little explored. The mountains which these veins traverse is composed of a section of strata extending from a basaltic rock, called the Whin, upwards to the Quarry Haze, being in height about 90 fathoms.

Its base on the east is formed by the River Tyne, the bed of which is the Whin; and on the west by the River Tees, which flows on the alternating strata below the scar limestone. The Calvert north vein, which is proved to be one of the most valuable opened in the manor of Tynehead, has been wrought very extensively on the eastern side of the mountain, by a level driven in the argillaceous rock immediately above the scar limestone. This level is driven in the vein about 800 fms., the whole of which has proved (up to the surface) very productive; having yielded several thousands of tons of ore.

Lower down the side of the mountain there is also another level driven underneath the scar limestone. This level is only continued in the vein a short distance, and is 13 fms. lower than the one described; thus draining the whole of that valuable section of strata, including the scar limestone, which could not be worked by the old miners, in consequence of the large quantity of water it contained.

At a short distance from the forehead of this level, the present company have made an air communication, by a rise to the high level which will enable them to drive the level westward in the vein at a much less cost than it has hitherto required. And as the present indications, both in the forehead and rise, are of a most favourable description, there is every prospect of this proving to the company a most valuable opening.

On the western side of the mountain the vein is almost entirely unexplored from the forehead of the high level down to the Tees, a distance of about 600 fms.; and from the forehead of low level about 1400 fathoms.

The Calvert north vein, in this extensive portion of the grant, is intersected by the Dosey vein from the south-east, by the Cross Fell Old Vein from the north-west, and several veins of smaller magnitude from the same direction; which, according to their ascertained bearings, must pass through this ground.

In order to explore this valuable part of the lease to the west, a level from the vale of the Tees may, at a moderate cost, be driven under the scar limestone, which at the distance of 100 fms. will cut the vein. From this flank level the vein may be opened to the east and west, to prove the effect of the different intersections described. And as the low level on the eastern side of the mountain, driven in the north vein, presents very flattering prospects, the continuation of that on the western side, in the same vein, will effectively prove this large plot of ground; which, according to all the precedents of the district, every practical miner would pronounce to be of the most valuable character.

JOHN WALTON.

Nenthead, Alston, Cumberland, Jan. 28, 1853.

The Calvert veins, as shown in the above reports, are most favourably situated, the western portion passing through comparatively unexplored ground, where they will be intersected by the Dosey vein, one of the most productive on the south-east side of the River Tyne, by Cross Fell Old vein, which has raised to the north-west many thousands of tons of ore; and others which are also known to be lead-bearing veins, and as the stratum under which the Calvert levels are at present being driven is the same as that in which the celebrated Roderup Fell Mine (situated at a short distance) is at present producing such large quantities of ore, and the mineral character of the veins being almost precisely the same, there is little doubt, if the trials suggested be vigorously prosecuted, the mine will make a profitable return to the company.

From the disinterested way in which the Greenwich Hospital disposes of their mining ground in takes, grants, and leases, as well as such portions as may be given up or forfeited by companies whose means may be exhausted, this company have an equal privilege with any other applicants, of possessing themselves of any veins or plots of ground which they may consider worthy of trial.

In conclusion, it may fairly be stated that no district in the world has been more productive in the article of lead and silver ore, than the one in which the mines of this company are located; and as lead is now in such great demand, and every facility afforded for its conveyance to market, by the opening of a branch railway to Alston—it must appear highly important to all enterprising capitalists to embark in a speculation of this kind.

1848; and his report to Mons. Landartine, then Minister of Mines, dated 16th June, 1849. An ex officio copy may be examined in Paris. This gentleman's address is at the French Consulate, Guayaquil.

THE EUREKA DIAMOND—WONDERFUL IF TRUE.—We have received a communication descriptive of this remarkable stone, which was found within two miles of Columbia, in Tuamomeen county. It is to be exhibited in Stockton and this time, prior to the departure of the owner for New York. Our correspondence respecting this stone is to be addressed to Dr. F. Banks.

A SOCIETY OF CHEMISTRY AND ASSAY OFFICE, DUNNING'S ALLEY, BISHOPSGATE STREET WITHOUT, Conducted by JOHN MITCHELL, F.C.S., Author of Manual of Practical Assaying, Manual of Agricultural Analysis, Treatise on the Adulteration of Food, Metallurgical Papers, &c. ASSAYS AND ANALYSES OF MINERALS, METALS, and every manufacturing product.

SPECIAL INSTRUCTION IN ASSAYING and CHEMISTRY for gentlemen intending to proceed to the colonies.

All enquiries respecting scale of fees, &c., to be addressed as above.

THE GREAT HEWAS UNITED TIN MINING COMPANY.

The Committee of Management beg to announce that they have this day COMPLETED THE ALLOTMENT OF THE SHARES in this Company, and they regret that, owing to the applications being so far in excess of their limited capital, they have unavoidably been compelled to disappoint many applicants, who would otherwise have been entitled to consideration.

The Committee are happy to acquaint the allottees that they have been so fortunate as to complete the purchase of a superior new engine, of 70-in. cylinder, from the St. Austell Foundry, now in course of delivery, and which the makers have contracted to set up complete within five weeks from this date, thus saving six months in the progress of the works. The Committee, therefore, confidently expect to make a return of produce within three months from this date.

12, Bishopsgate-street, London, March 31, 1853.

REIDOL UNITED SILVER-LEAD MINING COMPANY.

In 10,000 shares, 2000 of which are now offered by the present proprietors to the public at £1 each, in order to complete their working capital and machinery.

ON THE COST-BOOK PRINCIPLE.

OFFICES—13, BENNETT'S HILL, BIRMINGHAM.

The present proprietors and committee of management consist of highly respectable and influential gentlemen in the neighbourhood of Birmingham and elsewhere, a list of whom may be seen at the offices of the company, as also the regular reports from their resident agents, as contained in their prospectuses.

These mines are surrounded by the best paying ones in South Wales, which are dividing enormous profits, and the present aspect of the workings fully justifies the expectation of similar results from this undertaking; most valuable lodes have already been cut, and the ores are now preparing for the market.

SECRETARY AND PURSER—Mr. Wm. Phillips.

CONSULTING ENGINEER—Mr. Matthew Francis.

BANKERS—The Birmingham Town and District Banking Company.

Application for the above shares may be made as follows, on or before the 11th of April next, to Mr. Wm. Phillips, at the offices of the company; or to Mr. George Batter, 26, Throgmorton-street, London; from whom prospectuses and any further information may be obtained.

THE RHEIDOL UNITED SILVER-LEAD COMPANY.

I request that you will allot to me shares in the above company, and I undertake to accept the same, or any less number that may be allotted to me, and to pay the sum of £1 per share thereon when required.

Name Description Date

Residence and address Description Date

Name of Reference Description Date

WHEEL ECKLEY SILVER-LEAD MINE,

ST. TEATH, CORNWALL.

In 5000 shares, at £1 each.—To be paid for on allotment.

To be conducted on the "Cost-book System," at £1600 dues, for a term of 21 years.

COMMITTEE OF MANAGEMENT.

WILLIAM WYATT, Esq., Blandford.

WILLIAM PROCTER, Esq., J. P., Launceston.

JOHN CLENCH, Esq., Exeter.

BANKERS—Robins, Foster, and Bolitho, Launceston.

BROKERS—Mr. T. P. Thomas, 73, Old Broad-street; Henwood and Molynieux, Leeds.

MANAGING AGENT—Capt. John Dale.

ENGINEER—Mr. W. H. Grey.

PURSER AND SECRETARY—Mr. J. E. Procter, Launceston.

This very promising mine, held under a lease from the Hon. Lady Granville, was worked a few years since with abundant prospects of success, but, like many other good things in Cornwall, was abandoned simply from the fact that the proprietary was too poor to raise sufficient capital for the purchase of a steam-engine. This important desideratum will, however, now be supplied, and before Midsummer Day next, Wheal Eckley will be in full and profitable operation. At the time referred to, about £2000 had been expended on this concern, and shares had been selling out rapidly at a premium; but notwithstanding the apparent sunshine of prosperity, the mine was suddenly stoned, and lay dormant until the present enterprising company took up the sett. In bringing this promising adventure one more before the notice of the public, it will be important to state that the lodes of the celebrated Old Treburchet, out of which profits amounting to £1500 have been paid up. Subscriptions for 1500 shares only are now invited, for which very early written application to the secretary, in the usual way, must be made. For further particulars, copies of reports, surveys, and all other matters connected with the mines, apply to, or address by letter, J. W. Arundell Esq., London.

EDWARD WOOLMER, Esq., Exeter.

BANKERS—Messrs. Strahan, Paul, and Co., 217, Strand.

H. E. BICKNELL, Esq., Upper Bedford-place, Russell-square.

T. C. BATES, Esq., Drayton-terrace, Brompton.

H. F. GIBSON, Esq., Egham, Surrey.

ROBERT GIBSON, Esq., Sandhurst Lodge, Wokingham, Berks.

A. GREIG, Esq., Lowndes-street, Belgrave-square.

Capt. G. W. KEANE, Montpelier-road, Brighton.

FREDERIC LAWRENCE, Esq., Elm-court, Temple.

F. S. PARRY, Esq., The Steine, Worthing, Sussex.

WILLIAM TYLER, Esq., Bolt-court, Fleet-street.

SHIRLEY F. WOOLMER, Esq., 11, Chancery-lane, London.

WILLIAM WILLS, Esq., Totnes, Devon.

EDWARD WOOLMER, Esq., Exeter.

BANKERS—Messrs. Strahan, Paul, and Co., 217, Strand.

WRYSGAN SLATE AND SLAB QUARRYING COMPANY.

PORT MADOC, NORTH WALES.

Capital £15,000, in shares of £1 each.—On the "COST-BOOK PRINCIPLE."

The Directors beg to give notice, that these quarries will be put into active operation immediately, and that NO APPLICATION FOR SHARES can be RECEIVED after the 6th of April. —Samples can be seen, and all information obtained of T. W. Wilkinson, Esq., at the offices of the Company, 26, Grosvenor-street, May.

THOMAS LEWIS, Purser.

St. George's Chambers, High-street, Birmingham, and

33, Essex-street, Strand, London, March 31, 1853.

MIXON GREAT CONSOLS COPPER MINING COMPANY.

NEAR LEEK, STAFFORDSHIRE.

NO FURTHER APPLICATIONS FOR SHARES in this company can be RECEIVED by the Directors (the whole of the same having been already applied for), except upon the condition that, should any of the present Allottees FAIL in the PAYMENT of their DEPOSITS within the time prescribed, such SHARES shall be RE-ALLOTTED, according to priority of application.

St. George's Chambers, High-street, Birmingham, and

33, Essex-street, Strand, London, March 31, 1853.

THE DEVON TIN MINES, DARTMOOR, DEVONSHIRE.

THE GOVERNOR AND COMPANY OF COPPER MINERS IN ENGLAND.—Notice is hereby given, that the ANNUAL GENERAL COURT, or GENERAL MEETING of Proprietors of the above-named company, will be held at the London Tavern, Bishopsgate-street, in the City of London, on Thursday, the 7th day of April next, at Twelve o'clock at noon precisely, and that at such Court or Meeting an election will be had of three Assistants, in the place of P. V. Robertson, Esq., M.P., resigned, and of Andrew Bonar, Esq., Alfred Fowler, Esq., and George Gay, Esq., who retire by rotation, but who being eligible for re-election, will offer themselves accordingly, and that such Court or Meeting will also be for the election of Auditors.

The transfer books of the company will be closed from Wednesday, the 23d Inst., to Thursday, the 7th proximo, both inclusive.

By order of the Governor, Deputy-governor, and Assistants.

CHARLES FREWER, Secretary.

10, New Broad-street-mews, London, March 21, 1853.

SOUTH AUSTRALIAN COPPER MINING COMPANY.—The Committee of Management hereby give notice that, in pursuance of the resolution of the Board of 17th Dec. last, they have ALLOTTED the remaining UN-APPROPRIATED SHARES of the Company among the holders of such shares as were registered in the Cost-book in the month of January last, pursuant to notice, and stamped with the red stamp. Such allotment is in the proportion of two shares for every five shares so registered and stamped.

The letters of allotment will be issued at the office of the company on production of the shares so registered and stamped, on or before Saturday, the 16th day of April, 1853, after which day the right to claim such allotment will be considered as forfeited.

By order of the Board.

J. THOMPSON, Chairman.

Offices, 17, Gracechurch-street, March 29, 1853.

THE KEWEENAW POINT COPPER AND SILVER MINING COMPANY.

LAKE SUPERIOR, STATE OF MICHIGAN, UNITED STATES.

To be Incorporated by Charter, under the General Act of Incorporation of the State of Michigan, according to which all liability of shareholders is avoided on the capital being paid up.

Capital \$500,000, or £100,000, in 20,000 shares of \$25, or £5, each, payable on allotment.

TRUSTEES.

THOMAS KELLY, Esq., Alderman, City of London.

JOHN HUMPHREY, Esq., Alderman, City of London.

JOHN CARTER, Esq., Sheriff and Alderman, City of London.

DIRECTORS.

CHARLES C. TROWBRIDGE, Esq., President of the Michigan State Bank, Detroit.

CHARLES S. ADAMS, Esq., Detroit, United States.

CHARLES MANDELBAUM, Esq., Copper Harbour, Lake Superior, United States.

JOHN HUMPHREY, Esq., Alderman, London.

JOHN CARTER, Esq., Sheriff and Alderman, London.

GEORGE BURGE, Esq., London.

JAMES CLIFF, Esq., London.

GEORGE STONE, Esq., London.

BANKERS IN THE UNITED STATES.—Michigan State Bank, Detroit.

BANKERS IN LONDON.—Messrs. Barclay, Bevan, Tritton, and Co., Lombard-street.

BROKERS.—Messrs. John Shewell and Son, Tokenhouse-yard.

SOLICITOR.—Frederick Dineley, Esq., 30, Binombury-square.

SECRETARY.—Mr. James G. Wilson.

TEMPORARY OFFICES IN LONDON.

NO. 13, KING'S ARMS YARD, MOORGATE STREET, CITY.

The property proposed to be worked by this company consists of 320 acres of freehold Mineral Land, situate in the north-eastern part of Keweenaw Point, in Lake Superior, and is distant from Copper Harbour (the best harbour on the south side of the lake) three miles, and about two and a half miles from Bete Gris Bay, from whence there is easy communication to either port by a road which runs through the tract.

The title is indisputable, and is subject only to the tax of 1 dollar (4s. 6d.) per ton of copper, and 1 per cent. on the value of silver obtained, payable to the Treasurer of the State of Michigan, in like of all State taxes.

Several rich veins of copper have been discovered, but only two of them have been opened and proved. Of these, one on the north west portion of the tract has been sunk on several feet, and shows rich fine copper; it has an average width of 16 inches, and is traced some distance on the surface into the tract now being worked by the New York and Michigan Mining Company. (Vide Capt. Hoar's letter.)

The other vein, on the south eastern part, has been sunk on 30 feet, and at the bottom of the shaft is 18 inches wide, well defined, with regular walls, and rich in copper and silver; it has been opened on the surface at various points for a distance of 110 yards, and shows uniformity of richness throughout. The prevailing rock of the location is amygdaloid and granular trap, being the formation in which all the rich mines of Lake Superior are found. At the same depth to which this vein is sunk, it has proved fully equal, if not superior, to that of the celebrated Cliff Mine,* or any other as yet opened, and when as fully developed, it is fair to expect results equally favourable with those already obtained by the most successful of the companies at work in the same rich district.

The report made upon this mine by S. W. Hill Esq., a mining engineer of eminence, residing at Cooper Falls, Lake Superior, is most satisfactory, and can be seen at the company's Office.

* This mine has paid its Capital four times over, and is still yielding a net monthly profit of 20,000 dollars.

Subsequent to the date of this report, the following letters have been received:—

LETTER FROM CAPTAIN JOHN HOAR.

Copper Harbour, Dec. 11, 1852.—I have recently taken out of the shafts now sinking at the New York and Michigan Mine several masses of copper, weighing from 150 lbs. up to 800 lbs.—four of the masses weighing in the aggregate about 1600 lbs. The depth from the surface to where I have taken these masses is 115 feet, the vein running from 12 to 24 inches wide. There is good barrel and stamp work now in the bottom of the shaft for the last 25 feet that we have sunk it. The ground would pay well for stamping. I should add, that all this copper, and the excellent appearance of the vein in the shaft, is in greenstone formation. I have seen almost all the veins that have been opened on the Point, and I can safely say that I have seen none that will compare with the New York and Michigan, considering the work accomplished. Knowing that you are the principal owner in the New Lac La Belle Mine*, and as the vein in the New York and Michigan passes through the territory of the New Lac La Belle, I have thought it would be of some interest to you to know of the bright prospects of the New York and Michigan; for if the New York and Michigan makes a mine, there is a certainty that the New Lac La Belle will be equally good, if not better, lying as it does, directly south of the New York and Michigan, off the range of greenstone, and in the amygdaloid. The shaft sunk on the New Lac La Belle, last fall, which proved so very rich, is on this same vein.

(Signed) JOHN HOAR.

S. Mandelbaum, Esq.

* The Keweenaw Point Silver and Copper Company's mine is commonly known on the lake as the New Lac La Belle.

LETTER FROM SETH REES, ESQ., A MERCHANT AT COPPER HARBOUR.

Copper Harbour, Dec. 15, 1852.—I sent you a few specimens from the New York and Michigan Mine, taken from the shaft a few days since. They are down now 115 ft. in the greenstone. The vein is about 14 inches wide, producing good stamp work. I visited the mine on Monday (13th), and saw the masses recently got out. They are quite as large as Capt. Hoar represented, one weighing 800 or 900 lbs.* You will, I think, see a great similarity in the veinstone from this mine to that taken from the shaft on the New Lac La Belle location last fall. Being the same vein, and crossing the New Lac La Belle, in the amygdaloid, I am of opinion that a better mine will be found in the greenstone.

(Signed) SETH REES.

* Fine copper.

Assays have been made of the rock from these veins by Messrs. Syms, Willyams, Druse, and Co., of Swansea, by Professor De Busey, of University College, London, and Mr. John Mitchell, of Bishopsgate street, all of which prove the ore to be unexpectedly rich in silver and copper. The samples which can be seen at the office substantiate this fact, and afford conclusive evidence of the superior richness of these ores, as compared with the product of any other mining district.

With regard to the prospective advantages of this undertaking, it may be well to call the attention of the public to the fact that all concurring testimony tends to prove that Keweenaw Point is destined at an early period to be the largest contributor in the world to the great and increasing demand for copper. Indeed, it is beyond question, that it requires only a proper application of capital to develop the mineral riches of that district, and obtain results unparalleled in any other.

The directors of the company having satisfied themselves of the value and richness of the property, have entered into a conditional contract with the proprietor for the absolute purchase of the same, for the sum of 40,000*£*, of which 35,000*£* will be taken in the shares of the company fully paid up.

Although the directors have professed the great value of this property, it is their intention forthwith to send out competent persons to examine and further report upon it, and should the same be satisfactory, they will immediately ratify the conditional contract made with the proprietor, and take possession on behalf of the company; but should the report not prove satisfactory, the whole amount subscribed will be returned to the shareholders, the vendor in such event, having undertaken, with the directors, to bear the whole costs of the investigation.

The estate is admirably situated for mining purposes, possessing within itself an abundance of fine timber, having likewise a fine stream of water running through it.

The communication with Lake Superior, from this country is easy and expeditious; the journey from Liverpool to Copper Harbour, can be performed in 16 days. Large steamers and sailing vessels of a large class stop regularly at Copper Harbour. The transit to New York will be much improved as soon as the canal intended to unite the Lake Superior and Huron is completed. This is expected before the close of 1854, the bill authorizing the same having passed the Legislature of the state of Michigan. When completed the expense of freight, as well as the time of transit, will not only be lessened, but ships of 300 tons burthen will be able to load at the ports of the company, and proceed to Swansea, via St. Lawrence, without discharging cargo.

It might be supposed by those not cognizant of the circumstances, that the cost of transporting copper ore from the Lake Superior district to an available market, is an obstacle to mining in that region—such, however, is not the actual fact. The cost of conveying 1 ton of copper from Keweenaw Point to the smelting works at Detroit is 2*s*. to New York or Boston 4*s*. the ore carried yielding from 60 to 80 per cent. of pure copper. The average yield of Cornish ore being from 6 to 8 per cent., the actual cost of transporting the Lake Superior ore becomes commercially less than those obtained in Cornwall or Devon conveyed to Swansea only.

Labour is abundant, and comparatively cheap in the mining district. Provisions of all kinds are at a lower price in this division of the United States than on the sea-board.

Keweenaw Point is situated in latitude 46° 30' north, and although it is 5° south of London, the winters are colder than in England, but the air beautifully clear, and the climate not so severe as in our Canadian colonies. The summers are pleasant, and the district is without exception the healthiest in the United States.

The company being established under a Charter of the State of Michigan, in the United States of America, is free from the provisions of the English Registration Act. All liability of the shareholders is avoided under the provisions of this Act of the State on the capital being paid up.

Applications for shares may be made at the offices of the company; or to the company's brokers.

FORM OF APPLICATION.

To the Directors of the Keweenaw Point Copper and Silver Mining Company.

13, King's Arms-yard, Moorgate street.

GENTLEMEN.—I request you will allow me shares (of £5 each) in the Keweenaw Point Copper and Silver Mining Company, and I agree to accept the same, or any less number you may think proper, and to pay the amount of the subscription when required.

Date.....

Name in full.....

Occupation.....

Signature.....

Reference in London

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY.

NEW ARRANGEMENTS, AND REDUCED FARES AND FREIGHTS.

DEPARTURES OUTWARDS.

INDIA and CHINA, VIA EGYPT.—For Aden, Ceylon, Madras, Calcutta, Penang, Singapore, and Hong Kong, on the 4th and 20th of every month from Southampton; and on the 10th and 26th from Marseilles.

AUSTRALIA VIA SINGAPORE.—For Adelaide, Port Philip, and Sydney (touching at Batavia), on the 4th of May and 4th of every alternate month thereafter from Southampton; and on the 10th of May and 10th of every alternate month thereafter from Marseilles.

MALTA and EGYPT.—On the 4th and 20th of every month from Southampton; and the 10th and 26th from Marseilles.

MALTA and CONSTANTINOPLE.—On the 27th of every month from Southampton. SPAIN and PORTUGAL.—For Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, from Southampton, on the 7th, 17th, and 27th of every month.

CALCUTTA and CHINA.—Vessels of the Company ply occasionally (generally once a month) between Calcutta, Penang, Singapore, Hong Kong, and Shanghai.

N.B.—The rates of passage money and freight on the India and China lines have been considerably reduced, and may be had upon application at the Company's offices, 122, Leadenhall-street, London, and Oriental-place, Southampton.

THE PORT OF SOUTHAMPTON EMIGRATION COMPANY'S REGULAR LINE OF PACKET SHIPS.

To sail on the 30th of April for ADELAIDE and SYDNEY, the splendid new A1 frigate built ship, LEONIDAS, 1000 tons, F. G. TADMAN, Commander. This ship has great height between decks, a very improved system of ventilation, and is expected to prove one of the fastest ships afloat. Passage money 25 guineas, including railway fare from London to the ship's side in the Southampton Docks. The poor cabins are reserved for families, and are charged according to the accommodation required. For particulars, apply to the company's agents in London, Grindlay and Co., 124, Bishopsgate-street, and 8, St. Martin's-place, Charing-cross; or at the Company's offices, Canute-road, Southampton.

M. R. G. F. MUNTZ'S (JUN.) PATENT SOLID BRASS TUBES, 13*1/2*d. per lb., delivered in any part of the United Kingdom.—In introducing these tubes to the notice of engineers and the public, the patentee respectively directs their attention to some of the advantages which they possess over those previously in use:—

1st. Economy in the first cost.—2d. Greater durability, being made of a mixture of metal hard in its own nature, and not mechanically hardened, as ordinary brass tubes are, which renders them liable to split or burst when subjected to the expansion and contraction caused by the heating and cooling of the boiler.—3d. Equality of hardness throughout, the metal being sufficiently tough to bear expanding, when fixing in the boilers, without softening the ends, which is necessary in fixing the brass tubes previously in use, and which causes the softened parts to wear more.—4th. They are less liable to corrode than any mixture of brass which can be manufactured into tubes by the process previously employed.

G. F. Muntz's Patent Metal Company, French Walls, Birmingham, sole manufacturers.—Agents for London: Charles Moss and Co., 23, Fenchurch-street; Young, Dowson, and Co., Limehouse.—Bristol: E. Drew, Clifton Park.—Liverpool: C. Moss and Co., Redcross-street.

TO MERCHANTS, IRONMONGERS, AND SHIP OWNERS.

M. S. THORNTON AND SONS, BRADFORD STREET, BIRMINGHAM, beg to announce that they are AGENTS for Mr. MORRIES STIRLING'S PATENTS GENERALLY. Several of Mr. Stirling's improvements in the manufacture of iron and other metals are already well known, and in general and increasing use. Some of the more recently patented metals are found to be useful and economical substitutes for tin-plate, Britannia metal, and for certain applications of copper and brass; sheathing for ships is one valuable item. Messrs. Thornton and Sons are ready to give full information, and to receive orders, as well for the metal themselves (in all forms), as for articles manufactured from them.

They have also constantly in stock every description of STORES suitable for RAIL-WAY COMPANIES, including LIFTING JACKS, SIGNALS, CORDAGE, FLAX, &c.; and are the only Manufacturers of their REGISTERED DAY and NIGHT SIGNALS, IMPROVED CARRIAGE ROOF LAMPS, also sole Manufacturers of ELOIN'S IMPROVED MINERS' SAFETY-LAMP, the use of which will secure safety to the miner in the most explosive atmosphere, price 10*s*. 6*d*. and 12*s*. each.

VENTILATION OF COAL MINES.—BIRAM'S PATENT ANEMOMETERS, 12-in. £4 4*s*, 6-in. £3 3*s*. To be had of the manufacturer, John Davis, mathematical instrument maker, Derby.

All kinds of instruments pertaining to mines made and repaired.

PATENT SAFETY FUSE.—The GREAT EXHIBITION PRIZE MEDAL was AWARDED to the MANUFACTURERS of the ORIGINAL SAFETY FUSE, BICKFORD, SMITH, and DAVEY, who beg to inform Merchants, Mine Agents, Railway Contractors, and all persons engaged in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE has now a thread wrought into its centre, which, being patent right, infallibly distinguishes it from all imitations, and ensures the continuity of the gunpowder.

This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be had of any length and size, and adapted to every climate. Address.—BICKFORD, SMITH, and DAVEY, Tuckmill, Cornwall.

SAFETY FUSE.—Messrs. WILLIAM BRUNTON and CO., PENHALICK, near REDRUTH, CORNWALL, MANUFACTURERS of FUSE, of every size and length, as exhibited in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the Arctic Expedition, and every part of the globe.

Messrs. BRUNTON and CO. are at all times PREPARED to EXECUTE UNLIMITED ORDERS FOR SUPPLYING FUSE direct from their own MANUFACTORY, and warrant that it will prove equal to, if not better, than any produced elsewhere.

IMPROVED SYPHON, OR FORCING-PUMP.—The public are respectfully informed that a few of these SYPHONS are FITTED UP for the use of the public, and as may be seen at Mr. J. Pittford's, No. 8, Orchard-street, Ironmonger-row, near St. Luke's Church, London. Parties wishing to purchase may see them tested on the premises. Early orders will be strictly attended to.—For further particulars, apply at the office of M. De Fontaine Moreau, No. 4, South-street, Finsbury, London; or to the patentee, F. C. Mouat, Earlstown, near Melrose.

EXTRACTION OF GOLD AND SILVER FROM THEIR ORES.

—THE NEW RAPID AMALGAMATOR (BAGGS'S PATENT).

These powerful MACHINES are now TO BE HAD at a SHORT NOTICE, and of any number of horse-power, from four to twenty.—All communications to be addressed to Mr. ISHAM BAGGS, at the office of the Mining Journal, 26, Fleet-street.

A 4-horse Steam stamp, complete, £130, royalty included, for cash, and other sizes at proportionate rates.

The following Testimonial of the power and efficacy of these engines is from the manager of one of the smelting establishments in South Wales, where steam stamps, of moderate power, under this patent, have been for some time in operation:

TO ISHAM BAGGS, ESQ., LONDON.

DEAR SIR,—In reply to your letter of inquiry about the action of your Patent Stamping Machine, I beg to say, that I have now had it fully at work for two months; the quantity of coarse metal

THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5120 Alfred Consols (copper), Phillack	£2 16s	£19	18 18½	£6 9 0	£20 13 0	March, 1853.
1248 Alt-y-crib (silver-lead), Talybont, Wales	4	2	18	0 7 6	0 5 0-Jan.	1851.
2000 Anglesea Coal Company	4	4½	—	0 10 0	0 2 0-Nov.	1852.
1624 Balleswidden (tin), St. Just	11 1½	19½	10 ½	11 0 6	0 6 6-Feb.	1853.
4000 Bedford United (copper), Tavistock	2 1½	10 ½	10 ½	4 7 0	0 5 0-Feb.	1853.
5000 Black Craig (lead), Kirkudbrightshire	5	4%	4%	0 2 6	0 2 6-Nov.	1851.
64 Boscaswell Down (tin), St. Just	—	126	750 0	—	—May, 1849.	
1024 Botallack (tin, copper), St. Just	182½	810	—	455 10 0	13 0 0-Feb.	1853.
1000 Bryntail, Llanidloes, Montgomeryshire	7	6½	—	0 5 0	0 5 0-June	1851.
5000 Callington (lead, copper), Callington	£7 12s	6	—	1 8 0	0 4 0-Sept.	1847.
1000 Carn Bras (copper, tin), Illogan	15	78	217 10 0	—	2 0 0-March	1853.
128 Conford (copper), Gwennap, Cornwall	75	65	65	—	—	
236 Condurrow (copper, tin), Camborne	20	132½	135	23 0 0	3 0 0-Feb.	1853.
2510 Cook's Kitchen (copper, tin), Illogan	15½	3½	—	—	—	
128 Cwmytwy (lead), Cardiganshire	60	210	—	15 0 0	5 0 0-Dec.	1852.
1024 Devon Great Consols (copper), Tavistock	1	465	465	316 0 0	12 0 0-March	1853.
672 Ding-Dong (tin), Guvna	5	6	—	55 0 0	—	1850.
180 Dolcoath (copper, tin), Camborne	257 ½	105	102 110	855 14 0	—	1847.
1248 Dore Walls (tin, copper), Calstock	7 ¾	9½	10 11	0 5 0	—	Jan. 1852.
370 East Darren (lead), Cardiganshire	28	110	—	4 0 0	2 0 0-Jan.	1853.
128 East Pool tin, copper), Pool, Illogan	21 ½	150	233 0 0	—	—1843.	
91 East Wheal Croft (copper), Illogan	125	65	840 0 0	—	—	
128 East Wheal Rose (silver-lead), Newlyn	50	228½	200	2245 0 0	10 0 0-March	1852.
494 Fowey Consols (copper), Tywardreath	40	30	—	—	—	
3715 General Mining Co. for Ireland (cop., lead)	1 ½	5½	6 6 ½	0 17 3	0 1 8-Dec.	1852.
2000 Gorizian (lead), Cardiganshire, Wales	8	20	22 0 0	—	—	
1024 Gornamona (copper), St. Cleer	12 ¼	16	16	0 7 6	0 7 6-Dec.	1852.
96 Great Consols (copper), Gwennap	1000	200	353 6 8	—	—Jan, 1851.	
50000 Great Onslow Consols, Camelford	1 ½	—	0 2 0	0 2 0-June	1852.	
13750 Great Polgoth (tin), St. Austell	3	4½	4½ ½	0 10 0	0 4 0-Oct.	1852.
119 Great Work (tin), Germoe	100	175	156 10 0	7 10 0-Feb.	1853.	
1024 Herodsfoot (lead), near Liskeard	8½	29	19	0 7 6	0 2 6-Aug.	1851.
1000 Holm bush (lead, copper), Callington	25	21	25 0 0	—	—Feb. 1844.	
2000 Holyford (copper), near Tipperary	11	7	3 5 0	0 5 0-Sept.	1852.	
76 Jamaica (lead), Mold, Flintshire	31 ½ 13s. 6d.	3½	224 0 0	—	—	
785 Kirkeubrighton (lead), Kirkudbright	9½	4½	4½	0 15 0	0 10 0-Dec.	1852.
1000 Lewis (tin, copper), St. Erth	17	10	2 0 0	0 10 0-Aug.	1851.	
160 Levant (copper, tin), St. Just	21½	155	1036 0 0	2 0 0-Feb.	1852.	
1000 Lisburne (lead), Cardiganshire, Wales	75	1000	745 0 0	45 0 0-Dec.	1852.	
5000 Merlony (lead), Flint	23 ½	4½	4½	1 8 0	0 4 0-Feb.	1853.
100 Milvr (lead), Flint	15½	175	10 0 0	10 0 0-Oct.	1851.	
20000 Minin Co. of Ireland (copper, lead, coal)	7	18½	22 22½	8 1 0	0 7 0-Dec.	1852.
200 North Pool (copper, tin), Pool	22 ½	315	263 0 0	7 10 0-Dec.	1852.	
140 North Roskar (copper), Camborne	10	180	240 10 0	3 0 0-Jan.	1853.	
6000 North Wheal Bassett (copper, tin), Illogan	n.i.	12	11½ ½	1 11 0	0 5 0-March	1853.
6400 Penzance Consols (copper), St. Blazey	1½	20	10½ ½	22 16 0	0 15 0-March	1853.
1169 Perran St. George (cop., tin), Perranzabuloe	21 ½	40	1 15 0	0 10 0-June	1851.	
200 Phanix (copper, tin), Linkinhorne	30	750	240 0 0	10 0 0-Dec.	1852.	
1000 Polher (tin, St. Agnes)	15	13	4 5 0	1 0 0-Dec.	1852.	
580 Providence Mines (tin), Uay Leiant	20½	25	19 9 6	0 15 0-Feb.	1853.	
1048 Rix Hill (tin), Tavistock	3½	21½	8 8 0	0 4 0-Jan.	1853.	
25200 Rorrington (lead), Snailbeach, Shrewsbury	1	1½	0 2 2	—	—July, 1852.	
236 South Cadron (copper), St. Cleer	2½	240	235	271 10 0	4 0 0-March	1853.
9000 South Tamar (silver-lead), Beerverts	1 ½	8	0 15 0	0 5 0-Aug.	1853.	
236 South Tougas (copper), Perranzabuloe	19	250	245	61 0 0	5 0 0-Feb.	1853.
248 South Wheal Frances (copper), Illogan	37½	195	197½ 200	217 15 0	6 0 0-March	1853.
1024 Speare Consols (tin), St. Just, Cornwall	1 ½	10½	10½ ½	8 1 0	0 10 0-March	1853.
1024 St. Aubyn and Grylls (copper, tin), Brea	3	7½	0 17 6	0 7 6-April	1852.	
91 St. Ives Consols (tin), St. Ives	80	125	880 0 0	3 0 0-Feb.	1853.	
1000 Stray Park and Camborne Veat (copper)	16	9	11 10 0	—	—	
1000 Tarn Consols (silver-lead), Beerseston	4½	4½	4½	4 11 0	2 0 0-Feb.	1853.
6000 Tincroft (copper, tin), near Pool, Illogan	7 ½	11½ x d	6 18 6	0 10 0-Feb.	1853.	
512 Trebache Consols (silver-lead), Menheniot	2½	25½	15 12 6	1 0 0-Feb.	1853.	
5000 Treleigh Consols (copper), Perranzabuloe	6	2	1 3 0	0 5 0-Oct.	1847.	
96 Tresavean (copper), Gwennap, Cornwall	32½	200	4680 15 0	—	—1848.	
129 Trethellan (copper), Gwennap, Cornwall	3	14	402 10 0	—	—April, 1851.	
120 Treviak and Harrier (copper), Gwennap	130	90	295 10 0	2 10 0-Jan.	1853.	
100 Trumpet Consols (tin), near Helston	95	135	25 0 0	5 0 0-Dec.	1852.	
490 United Mines (copper), Gwennap	40	41½	420	23 15 0	10 0 0-Jan.	1853.
1000 Wheal Friendly (tin), St. Agnes	70	10	2 2 6	0 5 0-March	1853.	
128 Wheal Friendship (copper), Devon	120	125	2349 10 0	10 0 0-Jan.	1853.	
5000 Wheal Golden (silver-lead), Perranzabuloe	3	3	3½ ½	1 5 0	0 5 0-Sept.	1852.
512 Wheal Jane (silver-lead), Ken	n.i.	20	2 10 0	1 10 0-Feb.	1853.	
450 Wheal Lovel (tin), Wendron	33	48	17 10 0	2 10 0-Oct.	1852.	
112 Wheal Margaret (tin), Uay Leiant	79	117	196 0 0	2 10 0-May	1852.	
512 Wheal Mary Ann (lead), Menheniot	5½	45	44	23 5 0	1 0 0-Sept.	1852.
80 Wheal Owles, St. Just, Cornwall	70	300	85 3 0	12 10 0-Feb.	1853.	
6400 Wheal Proctor (lead & antimony), St. Kew	1	1½	11½	0 1 0	0 1 0-March	1853.
249 Wheal Reeth (tin), Uay Leiant	20½	54	56	40 10 0	0 5 0-Sept.	1852.
198 Wheal Seton (tin, copper), Camborne	107	210	227 10 0	4 0 0-Dec.	1852.	
320 Wheal Trelawny (silver-lead), Liskeard	8½	66	68	29 10 0	3 0 0-Jan.	1853.
1024 Wheal Tremayne (tin, copper), Gwinnar	5	28½	28	9 5 0	0 10 0-Dec.	1852.
5000 Wicklow (copper), Wicklow	5	63	74 73½	19 18 0	1 5 0-Feb.	1853.

FOREIGN MINES.

Shares.	Paid.	Last Price.	Present.	Paid.	Last Price.	Present.	Shares.	Paid.	Last Price.	Present.	
5000 Alten Mining Company (copper), Norway	£14½	7½	7½	3 10 0	0 16 0	Dec.	1852.	5000 East Black Craig, Kirkudbright	¾	1½	1½
7200 Baden, Grand Duchy of	1	1½	1 1½	0 1 0	0 1 0	Nov.	1852.	6000 East Bosara	1	1½	1½
10000 Brazilian Imperial gold, Brazil	25	5½	34 17 6	—	—	Dec.	1843.	1024 East Buller (cop.), near Redruth	4½	6½	6½
2461 Burma Brass copper, South Australia	3	15½	130 0 0	5 0 0	Dec.	1852.	1024 East Ding Dong (tin)	1	1½	1½	
12900 Cobre Copper Company (copper), Cuba	40	19½	47 48	56 12 0	3 0 0-Jan.	1853.	6000 East Kitt Hill (cop., tin), Cornwall	1	1½	1½	
10000 Copiapo Mining Company (copper), Chile	14	6½	6 8	3 18 0	0 5 0-Oct.	1851.	1020 East Polgoth (tin), St. Austell	1	1½	1½	
20000 General Min. Assoc. (iron, coal), Nova Scotia	20	18½	18½ 13 x d.	0 3 0	0 3 0-Sept.	1852.	1020 East Wheal Consols (tin, cop.)	1	1½	1½	
9000 Linares (lead), Potosi, Bolivia	3	14	12½ 13 x d.	0 3 0	0 3 0-Sept.	1852.	1020 East Wheal Consols, Alternarn	1	1½	1½	
27000 Marquita and New Granada	1½	1½	12	4 0 0	1 0 0-Dec.	1852.	1020 East Wheal Consols, Tintagel	1	1½	1½	
26000 Mexican and South American (cop.), Mexico	9	8½	8½ ½	4 10 0	0 5 0-Jan.	1853.	1020 East Wheal Consols, Tintagel	1	1½	1½	
7000 Royal Santiago (copper), Cuba	12	7	23 4 0	27 20 0	2 0 0-Dec.	1852.	1				